WORLD-WIDE

# AIR TRANSPORTATION

(REG. U. S. PAT. OFF.)

AIR CARGO ★ ★ ★ AIR COMMERCE ★ ★ ★ AIR TRAVEL

MAY 1

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Air Operation and World Trade • Amsterdam to New York . . . 300 Years After • Feederlines and Non-Scheduled Air Carriers • Why Corporations Buy Planes • The Aussies Put Wings on Meat • Charles H. Babb on Air Cargo • Air Cargo in Scandinavia's Mind

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*(Trade Mark)*

*CONSTELLATION*-type clippers are now being used exclusively on the **Pan American World Airways** route between New York, Lisbon and Africa.

A new international airlines terminal will be inaugurated in Paris by **Air France**, upon its completion early in June.

When President Truman flew to Hyde Park last month in his Army C-54 to attend ceremonies honoring the late President Roosevelt, he was accompanied by two 21-passenger *Silverliners* of **Eastern Air Lines**, transporting Government notables and press, radio, magazine and newsreel correspondents.

The Civil Aeronautics Board has granted two Cuban airlines, **Compañía Cubana de Aviacion, S.A.** and **Expreso Aereo Inter-Americano, S. A.**, foreign air carrier permits, authorizing the companies to transport persons, property and mail between Havana and Miami.

The **National Aeronautics Association**, governing body of sporting aviation in the United States, has issued an official sanction for the **National Air Races** at Cleveland over the Labor Day weekend, August 30-September 2.

**American Airlines** has added seven round trip flights per day between Washington and New York with 44-passenger DC-4, four-engine airplanes.

The first postwar sales conference of **Braniff Airways** was held in Dallas last month for traffic officials from 32 cities on the airline's system.

**United Air Lines** plans eventually to concentrate all its airplane maintenance work at San Francisco, with a virtual tripling of personnel and quadrupling of facilities now employed in such activities there by 1955.

The **Civil Aeronautics Administration** has resumed its prewar practice of accepting flight plans from any airmen who wish to file them. Filing a flight plan with the CAA's 37,000-mile airway network assures the pilot that if he should fail to arrive on schedule, search and rescue procedures will be initiated promptly.

The Philadelphia National League baseball club has completed arrangements with **TWA** for a chartered transport to fly the Phillies from Chicago to Philadelphia for an exhibition game June 13.

**Trans-Canada Air Lines** services between New York and Toronto were increased last month to four flights daily.

Twelve aircraft manufacturers have placed orders for lightweight two-way personal plane radios, "flying radiophones," being manufactured by the **General Electric Company's Electronics Department.**

VOL. 8 No. 5

AIR TRANSPORTATION
[REG. U. S. PAT. OFF.]

May 1946

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**THE COVER—Soon to be seen over the world's airways—the DOUGLAS DC-6—new luxury airliner. The plane has a range in excess of 2,500 miles, and can do better than 300 miles an hour. Accent is on comfort —plus!**

JOHN F. BUDD, *Editor and Publisher*

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# SEA-AIR Operation and World Trade

By EUGENE LEUCHTMAN

***This is a question about which you're going to hear more and more. This month AIR TRANSPORTATION has opened its pages to the views of the steamship lines. The June issue will tell the airlines' side of the story.***

HIGH over the Gulf seaport of Mobile, Alabama, above teeming docks where liners load for Liverpool and Shanghai, Puerto Rico and Antwerp, Cristobal and Manila, a Lockheed *Lodestar* passenger plane flashes in the sun as it heads inland.

Blazoned on the stacks of the liners far below is the hugh white W of the *Waterman Steamship Lines;* blazoned on the *Lodestar's* side is *Waterman Airlines, Inc.* Thus, this Spring begins the first venture of this great ocean transport company into the field of air transportation. Yet the wings of aviation are here clipped. Sister ships may ply the seven seas, but Waterman Airlines, operating under an Alabama state license, can fly scheduled service only within the borders of that state because the CAB has, as yet, refused to grant an overseas air license to any of America's steamship companies.

The fantastic parallelism of the landlocked plane above the city and the worldwide seaborne ships below mirrors a situation of increasing concern to American world trade and America's position in world aviation. The Government has this Spring been issuing permits to foreign airlines for overseas operation to the United States. Yet simultaneously, eight leading United States shipping lines, which have carried American commerce into almost every port of the world—some for more than a hundred years—have thus far been denied the right to operate airplanes and flying boats on their established routes and in connection with their existing services.

What the effect has been, in point of fact, is to put the shipping lines in the unenviable position of the boxer who, having his hands already too tightly taped, watches his second slip a horseshoe into the glove of his opponent and is powerless to do anything about it.

Many of the foreign airlines licensed, or in the process of licensing, are either owned wholly or in part by foreign shipping lines. That's the horseshoe in the boxing glove, for without combined sea-air operations the American merchant marine, on the very threshold of world leadership, faces a hopelessly losing battle with foreign competitors using every advantage of modern air and sea technology.

The eight shipping lines which have been trying for years to get permission to fly planes are listed here with the trade routes over which they operate:

The Atlantic, Gulf and West Indies Shipping Lines, serving the Atlantic Coast, the Gulf of Mexico and the Caribbean; Grace Line, serving the West and North Coasts of South America; Matson Navigation Company, the Hawaiian Islands; Moore-McCormack Lines, Inc., the East Coast of South America, Scandinavia and the Baltic; Oceanic Steamship Company, Australia and the Antipodes; Seas Shipping Company, South Africa; American South African Line, serving South and East Africa, and Waterman Steamship Corporation, the Caribbean, Puerto Rico, the United Kingdom, and offering a world wide service.

These lines have devoted great expense and much effort over a long period to promote overseas passenger traffic. They have established offices and agencies in almost every civilized country in the world where personnel, long trained and expert in dealing with the problems of travel and foreign trade are at the disposal of the passenger and shipper. For nearly a hundred years they have been accumulating travel know-how, and have maintained friendly and profitable relations with men of business and commerce and with government officials everywhere.

Maintenance, sales, accounting and administrative organizations are located in every part of the world. And while they are operated primarily for the convenience of the shipper and the passenger, they represent a huge asset to the foreign trade of America in guaranteeing economies in trade and travel which are reflected in profit to American enterprise generally.

The American shipper, unable to employ modern technologies of flight to keep pace with foreign shipping lines preparing joint sea-air operation, finds these enormous national assets unusable, and in some cases actually face their loss, for surveys of the Gallup Poll type reveal that 50 per cent of all overseas travel of the near future will be by airplane. The loss of this traffic to foreign sea-air lines would constitute a devastating blow to American shipping.

The advantages of combined sea-air operation are obvious. For instance, a businessman, pressed for time, can ship his car and his merchandise or samples ahead by liner, spend a busy week at his desk, and then fly to his destination, pick up his car and make his sales tour.

The average American who has traveled in peacetime overseas looks forward to returning to Europe. He can make two weeks do the work of four. A two weeks' vacation would give him a restful and luxurious sea voyage to Europe. He could spend a week in sightseeing and fun, and fly back to be at his desk on schedule. Without the sea-air combination this would be impossible.

## Ship-to-Plane

A salesman can send his samples ahead by ship and emplane a week later in plenty of time to meet them. He can break his journey at any point by intermediate transfer from ship to plane, or plane to ship, to suit his immediate convenience or accommodate himself to sudden changes of plan, and under combined sea-air operation by one company this would involve no more difficulty than getting out of a train to take a taxi. But he can do this simply and easily, and with a minimum of expense and red tape only if ship and plane are under one management. Reduction of costs to shipper and passenger are implicit in the sea-air combination. A careful survey by a leading American economist sets the air cost saving for the passenger through sea-air combination at an average of 20 percent under straight airline cost.

If the American shipping lines cannot give their passengers these advantages and foreign ship lines can, the foreign flag ship and plane will carry the American passenger.

The objections of opponents in this country to sea-air operation are that it offers unfair competition to "infant" airlines; that the ship lines might stifle the development of air transport; that they would promote surface transportation as against flight because of large investments in surface craft, and that ship lines lack air experience and facilities.

OVER MOBILE—A Waterman Airlines Lodestar in flight over Alabama's important port city. The airline is a division of the Waterman Steamship Corporation.

The ship lines do not ask exclusive rights to provide air service, even over their own routes. They merely want the right to offer a complete transportation service overseas for their patrons in areas which they have been serving by adding airplanes to their existing facilities for carrying passengers and cargo. They want to do this over their own established routes for their own customers. This can in no sense be construed as unfair competition even to "infant" airlines.

No shipper would be foolhardy enough to invest large sums in air equipment and then attempt to retard its use. Foreign flag competition alone would make this impossible, even if ship lines would so inconceivably work against their own interests. It has been the essence of the American Way to welcome and even foster competition, which can have only the traditional American result competition has always produced: lower costs, better service, improvement of equipment. The high standard of American living has been made possible by the free competition that is the lifeblood of our progress and civilization.

The charge that American ship lines lack air experience and facilities is simply false. American shipping companies were among the first to recognize the importance of the airplane to the future of overseas transportation and among the first to encourage its use and development. In the face of serious official discouragement, the American Export line built and successfully operated through the war the only American flag competition to Pan American in the Atlantic. When the war ended the ship line was forced by the Civil Aeronautics Board to divest itself of control, which was taken over by American Airlines.

It was a company with shipping interest which jointly pioneered the first air transport service under the American flag to the West Coast of South America and across the Andes to Buenos Aires.

The United Fruit Company flew planes in the 1920s in its operations in Central America.

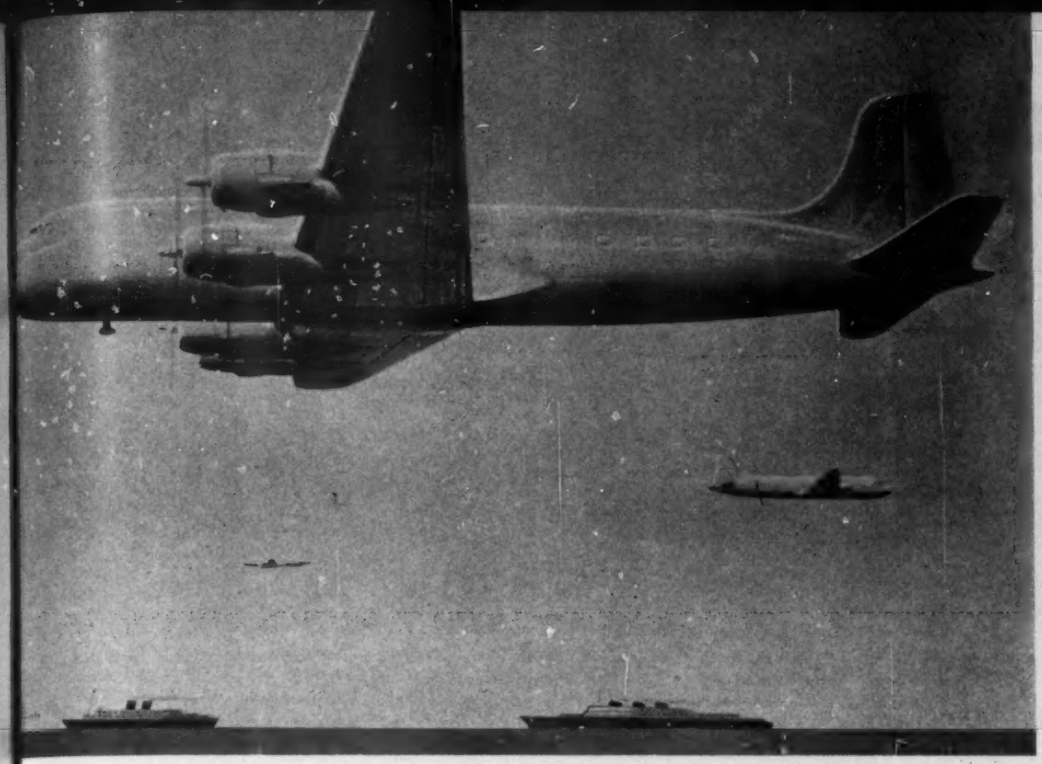
Matson helped establish Pan American's first service in the Pacific. In 1929 Matson initiated studies of air transport between the mainland and Hawaii. Its carefully planned local air service project for interisland flight in Hawaii was disapproved by the CAB, and in 1934 when the company applied for a certificate to operate California-Hawaii air service, it was denied.

The Waterman Steamship Company, in addition to operating Waterman Airlines, trained American pilots for combat as part of the war effort. It has developed a long-range, high-capacity

### The Author

One year this side of the half-century mark, married, and the father of two children, Eugene Leuchtman totes along 25 years of journalistic experience. Connected with *The South Bend Tribune* from 1921 to 1923, he became feature editor for *The Detroit Free Press* in the latter year, a position he held until 1930. Shifting to *The New York Daily News* in a similar post, Leuchtman stayed for five years, after which he was appointed associate editor for the King Features Syndicate. He resigned early this year.

From the literary point of view, it is interesting to note that Leuchtman is the author of the successful book, *U-Boat Prisoner*, which later made Hollywood. His articles appear regularly in magazines and newspapers.



PLANES AND SHIPS—The new and the old forms of transportation, both spanning seas in the service of foreign trade and travel.

cargoplane especially designed for the Caribbean trade and Waterman has test-flown the overseas air routes for which it has applied.

## Backlog of Know-How

These few examples should serve to set at rest any belief on the part of sea-air opponents that shippers have no facilities or experience in air operations. As a matter of fact, the shipping lines have an enormous experience and knowledge of transportation, and whether you fly in the air or sail on the sea, you're selling not airplanes and ships but transportation. The difference between air and sea is one of degree, and the business of operating airplanes is not not so mysterious and esoteric that a shipping line should be ruled out. Men to operate and maintain planes are available equally to ship lines and air lines. The travel know-how is what you can't buy in a hurry. Acquisition of that is a long-term procedure calling for patience, tact, determination, cooperation and an organization which costs millions and takes years to build.

In these columns a short time ago an official of an overseas airline admitted that . . . "We in the aviation business don't yet know all the foreign traders' problems, but we are trying to learn. The foreign trader on his side can help us develop aircraft, routes, rates and facilities to assure maximum build-up of his business, our business and the foreign trade of the United States in minimum time and with maximum profit for all."

The American shipping lines understand the foreign traders' problems and have for decades helped the trader solve them. They don't have to learn. They've got the knowledge, the equipment, the personnel and the organization. In spite of this they have had to stand, hat in hand, while domestic airlines which have never operated overseas in peacetime get the green light from the Civil Aeronautics Board.

There's the story about the slow-talkin' girl which you may not have heard, and which is an apt illustration of the predicament in which the American shipping lines find themselves. It seems that there was once an operating room nurse whose speech and movements might charitably be described as somewhat deliberate. One day this deliberation really got under the skin of the long-suffering surgeon.

"Now look here," he said in exasperation. "I don't mind very much that you move slowly, because you seldom make a mistake, but can't you, for goodness' sake, talk a little faster? It seems to take you forever to say something. I've never in all my life heard anyone talk so slowly."

"Slowly . . . doctor?" said the nurse. "I . . . don't . . . talk . . . so . . . slowly . . . You . . . ought . . . to . . . hear . . . my . . . sister . . . She . . . talks . . . so . . . slowly . . . that . . . one . . . day when . . . she was . . . on a date . . . with a . . . sailor . . . before she could . . . tell him . . . she . . . wasn't . . . that . . . kind . . . of . . . a girl . . . she was."

If the shipping lines don't talk up, and fast, they face this same doleful fate at the hands of their foreign competitors.

## Montreal Aviation Section Air Conference on June 6

The Aviation Section of The Montreal Board of Trade will convene the first district air conference ever held in Quebec Province on June 6 at the Ritz-Carlton Hotel. The conference will meet for a three-day session to discuss the general subject, "Montreal and the Air Age." V. G. Bartram, president, Shawinigan Chemical Ltd., and chairman of the Section, will preside at open session, alternating with R. B. Irvine, executive vice president, Fairchild Aircraft Ltd., and S. L. deCarteret, president, Canadian International Paper Company.

## Willis Air Service In International Field

Willis Air Service, Inc.—the Commander Line—will expand its air freight operations into the international field, according to Walter B. Brooks, vice president. Cuba and Puerto Rico have entered into the airline's orbit.

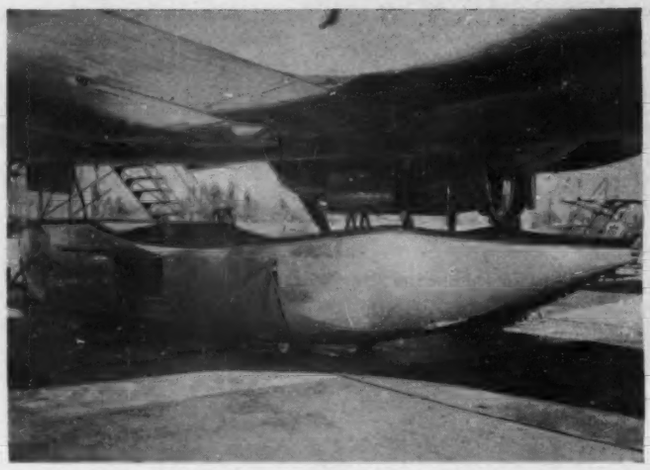
Its initial Cuban contract provides for immediate delivery of 60 tons of textiles monthly. A general air cargo service to Puerto Rico has been inaugurated to fill United States and island contracts on frequent non-scheduled flights. Naval airport facilities at Isle Grande will be used.

## Kellett Aircraft Leases Big Pennsylvania Plant

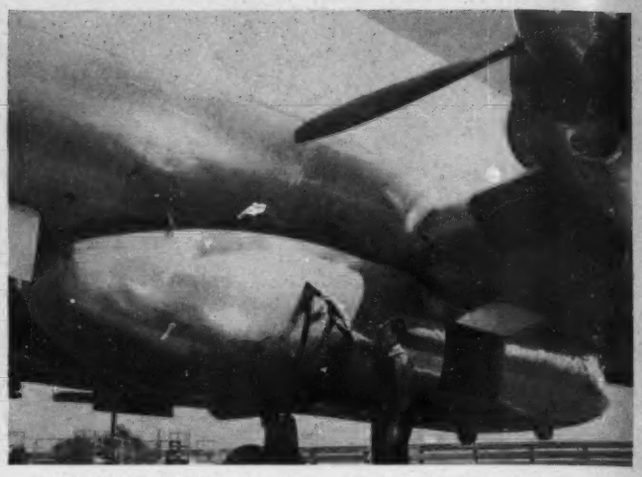
W. Wallace Kellett, president of the Kellett Aircraft Corporation, has announced a five-year lease arrangement with the War Assets Administration for a surplus war plant at North Wales, Pennsylvania. The company will have an option to purchase the property during the period.

All operations will be centralized in the new plant, resulting in the closing of four leased properties in Philadelphia and Delaware County, Pennsylvania. Kellett is planning to announce a revolutionary transport helicopter design sometime this year.

# Speed + Cargo = Speedpak



LOADING BECOMES PURE AND SIMPLE—Looking very much like a seacraft, the Speedpak waits for its load of cargo. Small rubber-tired wheels under the Speedpak permit the unit to be loaded inside terminal buildings and then rolled beneath waiting airplanes.



TIGHT AS A GLOVE—Nestling under the fuselage of a Constellation, the Speedpak is ready for flight. Net payload of the Speedpak is four tons. Cruising speed of the 300-mile-an-hour Constellation is decreased only 10 miles an hour with a full extra cargo load.

IT won't be long before the now familiar Lockheed *Constellations* will be burning up the airways with an additional load of cargo equal to the total payload of the usual twin-engine cargo transport. This is especially interesting in view of the fact that the *Connies* are currently transporting the biggest loads of passengers, mail, and express.

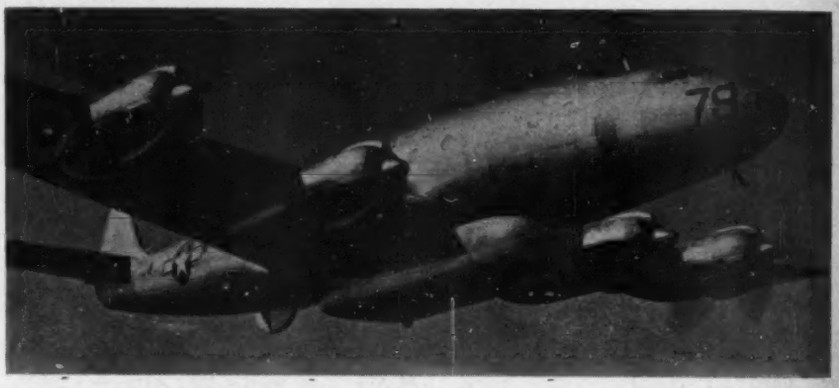
The increase in the payload will amount to something like 8,000 pounds for flights up to 1,500 miles. How? The answer is Speedpak, an all-metal, streamlined cargo container that fits snugly to the underside of the fuselage.

First details were made public by Robert E. Gross, president of the Lockheed Aircraft Corporation. He stated that the Speedpak gives the airline operator two planes in one: with the new attachment, a heavy-duty, high-payload transport, with additional cargo and mail to take care of otherwise unused weight-carrying capacity on short hauls; without it, a swift, long-range transport.

Only a minute or two is needed to remove or attach the Speedpak—which is going some! Gross sees the new device as also promising faster baggage handling at airports. Provision for use of the Speedpak is built into each *Constellation* without affecting appearance or performance.

Preliminary test flights have shown that the 300-mile-an-hour cruising speed of the big four-motored plane is slowed only 10 miles an hour with the loaded Speedpak installed. Flight characteristics are not impaired.

Important is the fact that ground attendants can load or unload passenger baggage from the Speedpak with ease.



THERE SHE GOES—Carrying some 8,000 pounds of cargo in the Speedpak, in addition to her regular big load, the Constellation makes for the upper reaches.

A built-in electric hoist instantly lowers the Speedpak to convenient loading height, and as quickly raises it into position to be locked for flight.

Baggage can be loaded prior to flight time inside terminals. Special removable compartments can be designed for intermediate points to be removed and replaced as a unit. On the other hand, the Speedpak can be loaded as a whole. When the plane is ready to take off, the fully loaded Speedpak is rolled to the ship, and its self-contained electric hoist raises it into place.

According to Gross, development work began on the Speedpak when *Constellation* performance tests demonstrated the plane's ability to maintain a high safety factor and high speeds at gross weights considerably exceeding those for which it was designed—which naturally meant that a higher payload was possible. The next problem was where to place it.

"Throughout the war," said Gross, "we had seen our P-38 *Lightning* fighter take on one external fitting after another for which it was never intended, with no bad aerodynamic effects. We had been able to hang 1,000-pound bombs, 150-gallon fuel tanks, as many as 14 rockets, and even large external cargo containers on the P-38 without affecting its performance.* We decided to try the same trick the *Constellation*."

The Speedpak, which nestles underneath the *Constellation* between the wings, is 33 feet long, seven feet wide, and three feet deep. Its total volume is 395 cubic feet. Empty weight is 1,700 pounds, and with a top cargo load the gross weight of the Speedpak and its contents runs to 10,000 pounds.

Present *Constellation* baggage space —440 cubic feet below the floors—will continue to be used. As in most planes, this space must be reached from ladders or elevated platforms. The Speedpak will alter the operation somewhat. Cargo, mail, and express not requiring frequent rearrangement will be carried in the new attachment.

* See May, 1945, issue of AIR TRANSPORTATION.

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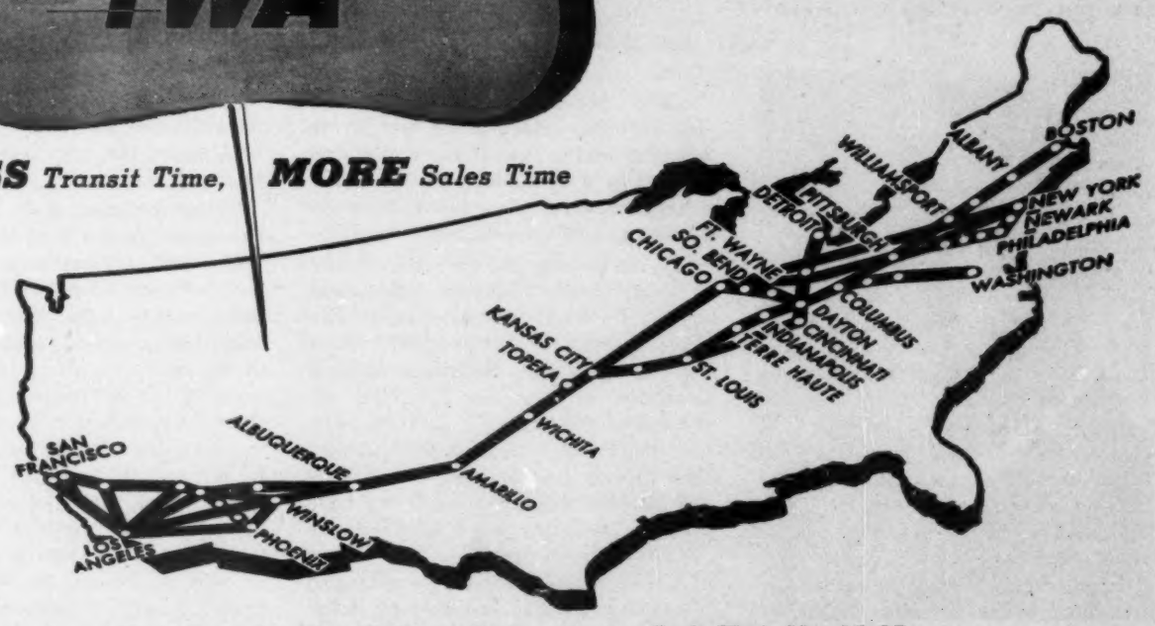


World Trade Puts Men To Work—National Foreign Trade Week, May 19-25

# AMSTERDAM To NEW ~~AMSTERDAM~~ YORK

## . . . 300 Years After

By Richard Malkin

IF ectoplasm could do for the blustery Peter Stuyvesant what it did for the late Thorne Smith's characters, he'd be a mighty befuddled gentleman. Of course, three centuries make a world of a difference; but what is probable would hit the first Governor of New Amsterdam hardest, is the fact that it took him months to travel from the Netherlands to what is now New York, while this month KLM, the Royal Dutch Airline, will make the journey in something like a day all told.

Old Pete might stamp his silver pegleg, and roar the Dutch equivalent of:

"Well, dog my dogs! We Hollanders are pretty good, eh?"

And we would have to agree with Old Pete, because KLM has been writing air transportation history for nearly 27 years.

It was on October 7, 1919—just 11 months after the armistice which ended the First World War—that Albert Plesman founded Koninkluke Luchtvaart Maatschappij, more easily recognized as KLM. Two-and-a-half years later—in fact, just 26 years ago this month—

Albert Plesman

FLYING DUTCHMAN—DC-4 Skymaster which will link Amsterdam and New York in KLM's new transatlantic service. This picture was taken at LaGuardia Field.

### Van Ruysdael-by-Air

A painting by the Dutch master, Jacob van Ruysdael, a present from the Government of the Netherlands to President Harry S. Truman, will be taken on KLM's first flight from Schiphol Airport to New York.

the company began flying on alternate weekdays between Amsterdam and London. DH-9s and DH-12s were used on these 220-mile trips between the two cities.

Came September and Fokker F-2s and F-3s were added to the fleet plying between the two capital cities, only now it was on a twice-daily basis. Daily schedules were also inaugurated to Hamburg and Copenhagen.

A year passed, and then the world's first air traffic booking office was opened by KLM in Amsterdam. The years between 1921 and 1924 were feverish ones, with the airline seeking to stretch out to greater distances. At the end of this period, J. J. Thomassen van der Hoop completed for the first time the air link between Amsterdam and Batavia, capital of the Dutch East Indies. The plane was a single-engine F-7, powered by a Rolls-Royce motor of 350 horsepower. It barely managed to reach a cruising speed of 80 miles an hour.

But the 9,000-mile link was forged!

In 1925, KLM introduced the eight-seat F-7, powered by a single Bristol *Jupiter VI* 480 horsepower motor. This was the first air-cooled motor to be used by any air transport company.

The Twenties were drawing to a close. In 1929 the Governments of Curacao and Surinam requested the Netherlands Government to advise them on legal, technical, and commercial matters. Two experts were sent out to the West Indies: U. F. M. Dellaert, manager of Schiphol, Amsterdam's municipal airport; and D. de Vries, general traffic manager of KLM. A history of the airline's operations in the Caribbean area, issued two years ago, said of Dellaert and de Vries:

"These two men made a trip of over two months in the West Indies and conferred with a great many Government and company officials. The results of their journey were related in a most enlightening report, covering all angles of the many problems involved. The contents of that report, even several years later, proved to be of great value in connection with the establishment of KLM's operations in the West Indies. In particular their thorough investigation of suitable sites for the construction of future airports on Netherlands', as well as foreign territory, was extremely helpful in speeding up the program that was later decided upon.

SCHIPHOL AIRPORT—Prewar scene at Royal Dutch Airlines' base in Amsterdam. When the Nazis invaded the Netherlands, KLM was able to escape to England with only six of its big fleet of planes.

"Apart from the general problems Dellaert and de Vries had to consider, they had been requested also to give their views on the possibility of establishing airlines under the Netherlands' flag in the Caribbean. They worked out several plans on a limited scale, but due to a considerable extent to the expected competition from the three foreign lines,* the result was not very encouraging from a financial standpoint.

"In that period KLM's attention was largely focused on the development of the Amsterdam-Batavia line and it can readily be understood that, due to the rather unfavorable conclusion of the report dealing with the possibility of creating KLM services in the West Indies, further steps were postponed for the time being."

But Albert Plesman stepped into the picture once again. He had two plans, formulated at the end of 1933; KLM participation in the London-Melbourne race with the company's first Douglas DC-2; and the tricentennial commemoration of Dutch authority over Curacao with a transatlantic flight from the mother country.

The MacRobertson Race made world headlines. KLM Captains Parmentier and Moll won first prize in the handicap and second prize in the Mildenhall-Melbourne flight. The Amsterdam-Curacao flight was another rousing success. It was a tri-motored Fokker transport christened the *Snip*—in other words, the *Snipe*—that came in for a landing at Curacao's Hato Airport in a December afternoon of 1934, just three days before Christmas. Says the airline:

"We consider that moment the birth of KLM's West Indies Division."

The development of Royal Dutch Airlines continued right through the politically troublesome Thirties and up to the Nazi invasion of the Lowlands in May, 1940. KLM was hit bad. Five DC-3s and a single DC-2 were salvaged and flown to England. They went into service soon afterward, operating daily between embattled England and Lisbon. The Nazi pill was a bitter one to swallow, but with characteristic Dutch courage the company rolled up its sleeves and started anew.

Then V-E day. . . .

This was the signal for the restoration of KLM's equipment, routes, and services. Schipol Field was a shambles, but the Herculean task of rebuilding it was pitched into with new zeal. Now, one year later, with American manufactured aircraft bearing the airline's banner, KLM is flying throughout Europe on a scale larger than it had been in the prewar era.

May, 1946, is a big month in the history of KLM. It proclaims the first of the airline's Amsterdam-to-New York scheduled runs in big luxury *Skymasters*. Four *Constellations* are on order, and these will be pressed into service just as soon as they are delivered. Meanwhile, the flights from Miami to the West Indies have been stepped up with more modern equipment.

In New York, Captain C. F. C. Meuser, United States general representative, is working at top speed to keep abreast of these fast times. And over his shoulder is the ghost of Peter Stuyvesant who is clucking his tongue in a highly satisfactory manner.

Captain C. F. C. Meuser

### *KLM's Fares in U. S. Dollars from Amsterdam to*

| | |
|---|---|
| Allahabad | 573.00 |
| Bangkok | 656.00 |
| Basrah | 419.00 |
| Batavia | 732.00 |
| Cairo | 286.00 |
| Calcutta | 602.00 |
| Karachi | 526.00 |
| Naples | 147.00 |
| New York | 453.10 |
| Penang | 682.00 |
| Rangoon | 632.00 |
| Sinpagore | 701.00 |

KLM SKYTRAIN—One of the Douglas DC-3 transports in KLM's West Indies service.

*Pan American, SCADTA, and Compagnie Generale Aeropostale.

# *HOOSIER STEPS OUT*

Gen. Leland W. Miller

**FOR THE WEST COAST**—Mayor Grant of Fall River, Massachusetts (left), and John D. Harris, president of Thomas French and Sons, look over part of the shipment of Venetian blind tape flown coast-to-coast by Hoosier Air Freight.

•

**RAPID TRANSFER**—A Hoosier Air Freight cargoplane taking on a three-ton load consigned to a California distributor for the purpose of relieving the staggered Venetian blind industry on the Pacific Coast.

WHEN an industry falls flat on its back because of lack of materials, that's bad. When a manufacturer decides to alleviate the shortage by concentrating on the source of demand, that's pretty good. But when the latter decides to utilize air cargo services to resuscitate the industry on the opposite end of the country within a single day, why, that's very good!

Well, that's one way of introducing the Hoosier Air Freight Corporation, an all-veteran outfit which inaugurated its first commercial flight in just that way.

It was a desperate shortage of Venetian blind tape on the West Coast that socked the industry in that part of the country hard. Like a fully equipped automobile without the necessary gasoline, hundreds of manufacturers on the Pacific Coast were set back on their heels because a single component—tape—was not available.

Here Thomas French and Sons, Ltd., of Fall River, Massachusetts, and Manchester, England, stepped into the picture. Manufacturers of Venetian blind tape, French agreed to allocate the item to the West Coast, and arranged for delivery to the Unit Venetian Blind Supply Company, of Los Angeles, California, which would distribute the emergency delivery to local manufacturers.

But the new England manufacturers went one better. They decided to transport their 6,000-pound shipment by the fastest possible means, which, of course, meant via cargo plane. Hoosier Air Freight was brought to the attention of John D. Harris, president of Thomas French and Sons, and a contract to fly the cargo cross-country followed in a jiffy. No time was lost. A truck picked up the cargo at the factory, met one of Hoosier's *Skytrains* at Hillsgrove Airport, Providence, Rhode Island, and the plane took off with what is now being called Fall River's first all-air cargo shipment. Actual delivery of the tape to West Coast manufacturers was made a day after the take-off.

Hoosier is hitting its stride now. Additional flights of Venetian blind tape have been made to Los Angeles and Dallas. The Chrysler Corporation recently chartered one of its planes to fly a 6,000-pound shipment of oil filters from Newark to Detroit. Nor was this the only time that Chrysler singled out the Hoosier air freight line to transport cargoes.

Director and administrative adviser of Hoosier is Brigadier General Leland W. Miller, former Chief of Staff of the Eighth Service Command, organizing supply depots and lines of communication. He also served as budget and fiscal officers, supervising 2,950 civilians and 900 military personnel. Sixty-two billion dollars appropriated by Congress during 1940-46 for Air Force defense were under his direct control.

General Miller is a graduate of Purdue University. He has studied at the Army Industrial College, and received degrees from George Washington University and the Harvard University School of Business Administration. Last years he was awarded the DSM.

L. W. Bouse, former senior field representative of the Douglas Aircraft Corporation, has taken over the post of director of maintenance for Hoosier. He joined Douglas 10 years ago, and as crew chief tested all of the company's new-model airplanes. Since 1939 his duties were to assist operators in the servicing and maintenance of Douglas equipment, and was in charge of 160 domestic and foreign field representatives.

Today Hoosier has hangar and shop space at the Baltimore Municipal Airport, where its planes will be reconditioned and maintained. An acre has been rented at Newark Airport where arrangements are being made to set up a hangar and a loading platform.

Meanwhile, Hoosier Air Freight is stepping out with its right foot first. There's plenty of know-how behind the company. And it has its eye on only one thing—cargo, and plenty of it!

# AIR--X--PRESS

## *BEHIND THE SCENES*

*The plane has taxied to the passenger gate. A sea of faces scan the alighting passengers for a husband, a sweetheart, a friend. Excitement breaks out as the arriving and the awaiting are reunited. But, the plane carried another load besides passengers. Already, if you will note, workers are busy taking air express shipments from the hold of the plane. They work methodically, carefully, unheralded, as they keep air shipments moving.*

Meanwhile, in a nearby town a doctor, a young man and his dying wife are waiting for the arrival of a small package. The rare drug streptomycin is in the package and it came from a far-off city to save the life of the young man's wife.

In another city, a movie manager is checking the time for the arrival of the latest newsreel, which will be flashed on the screen as soon as he receives it.

A well-known buyer is waiting in his officer for several samples, which may lead to a large sale for the clothing manufacturer alert enough to make use of the air. And there's the young boy who will be surprised with a birthday present from his father, out of town on business.

All these air express shipments were on the plane. And more: a gem, an orchid and a bulky piece of machinery to replace a broken part, which had an entire assembly line snagged. Clothes, delicate electrical equipment, newsprint, freight manifests. Everything goes air express—from a-a-acrons to z-z-zithers, and it is all moved forward to its final destination by truck or rail or another plane to other towns and cities, some near and some still farther away.

## *FAST, FAST, FASTER!*

*The crowd is dispersed. Another is forming. Another plane has taxied to the gate. This one will shortly depart for distant cities. The passengers are going on and the air express workers are still loading their shipments, carefully, methodically, unnoticed.*

But, all those unexciting-looking packages have an exciting history, and come from somewhere. They just don't grow. They have moved to the airport by rail or truck or plane, and many employes of the Air Express Division of the Railway Express Agency have been checking schedules and pushing those shipments along . . . by that fastest means available. The business man, the farmer, the shipper, the housewife . . . none of them will be at the airport for their shipment, but they will be waiting. And the Air Express Division, which got the shipments on the plane will speed them away for door-to-door delivery.

## *KEEP THEM MOVING*

*The planes come and go. Thousands of flights a day, all scheduled. 356 daily flights in and out of LaGuardia Airport, N. Y., alone. The air expressmen work 24 hours a day.*

And the Air Express Division of the Railway Express Agency is coordinated with the thousands of scheduled flights, combining air speed with ground speed. Coordinating with the airlines of this country, its 232,000 miles of rail, 16,000 miles of highway and 12,000 miles of waterways. And all of REA's air express-minded employes—82,000 of them—keep the shipments moving all day and all night at 375 airport cities and 23,000 ground offices all over the country.

*(Advertisement)*

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|---|---|---|---|---|---|
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| 149 | $1.00 | $1.00 | $1.00 | $1.23 | 3.07¢ |
| 349 | 1.02 | 1.18 | 2.30 | 3.68 | 9.21¢ |
| 549 | 1.07 | 1.42 | 3.84 | 6.14 | 15.35¢ |
| 1049 | 1.17 | 1.98 | 7.68 | 12.28 | 30.70¢ |
| 2349 | 1.45 | 3.53 | 17.45 | 28.24 | 70.61¢ |
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# FEEDERLINES...

## And Non-Scheduled Air Carriers

### *Where Do They Stand in Commercial Aviation?*

By JOSEPH J. MITCHENER, JR.

*Executive Director,*
*Feeder Airlines Association*

***There's a definite place of the feeder airline and the non-scheduled air carrier in the commercial aviation picture as a whole. But there are problems which have to be met and overcome. Here's a clear picture of what confronts that part of the industry.***

BEFORE the recent war, the expression, "*Aviation is in its infancy*," was used in almost every speech and article concerning aeronautics. Research, technical development, the discovery of many new and practical uses for the airplane, both as a weapon and as a medium of transportation, all of which resulted from war necessity, have caused such vast strides in aeronautical development over a short period of time that we are no longer confronted with the old prewar problem of public acceptance.

The public is ready for commercial aviation expansion, and expects it to expand rapidly. What may appear to be public apathy toward aeronautical development is merely lack of understanding of the problems faced by the industry. In short, the public doesn't know that there is any reason why aviation should not come of age overnight.

Let me repeat the over-worked expression, "Aviation is still in its infancy." Aeronautical development during the war taught us how to build airplanes bigger, and better, and faster; taught us volume production; and gave us millions of trained personnel—but the fact still remains that at present we have something to sell commercially to the public which is beyond the means of the vast majority of our people. The average citizen still can't afford to pay the price of airline fares; still can't justify the expense of maintaining an airplane for company business; still can't afford to pay the price that must be charged for the personal airplane; nor the price that is charged for student instruction; nor the price that is charged for maintenance, overhaul, etc.

Joseph J. Mitchener, Jr.

The airlines are doing their best to adjust prices so that they will ultimately be within the reach of any who wish to travel. More efficient equipment and increased volume of business will enable such reductions. Increased volume of business will accrue as a result, not of public *acceptance* of aviation, but as a result of public *use* of aviation. This would seem to indicate that aviation, in all its phases, should be made available to all the people of this country; and the time for bringing aviation into close contact with everyone, even in the remotest corners of the country, is *right now*.

The Congress at present is endeavoring to reconcile two airport bills so that they may be acceptable in amended form to both the Senate and the House of Representatives. Many of us have our personal opinions as to which of the bills has the most merit. However, I believe that we in the industry, and the public in general, are convinced that the enactment of some compromise which will include the main features of both bills is as important to American commerce, and the future of millions of Americans, as anything upon which Congress might act. The establishment of the airports which would be made possible through these bills will provide the means for increasing the utility of the company airplane, the private airplane, and the trunk or feeder airliner.

This increase in utility will make the purchase of aircraft practicable to companies and individuals who cannot now justify their use. This increase in volume of production by the aircraft factories will permit the lowering of prices which, in turn, will place them within the financial means of a larger proportion of the people. It is an endless chain—more airports, greater utility for the airplane . . . greater utility of the airplane, more purchases of aircraft . . . more purchases of aircraft, lower aircraft prices . . . lower aircraft prices, greater volume of sales . . . and so on.

While we are thinking about airports and airport bills, there is another bill that concerns Government surplus airports which, on the face of it, seems to me well worthy of consideration. This is S.1398, introduced in September of last year by Senator Brien McMahon of Connecticut, and referred to the Committee on Military Affairs. The bill would convey title of these airports and facilities to the states in which they are located if the states desire such conveyance, or to a political subdivision of the state if the subdivision so desires and if the subdivision has prior claim. The bill provides that the Government shall make up any deficit in operation of these airports for a period of five years, at the end of which time either the Government or the operating body, or both, may decide to

discontinue operation. Maybe there are reasons why this would not be a good bill. If so, they are not apparent to me at present.

I believe my readers will agree with what I said several paragraphs ago, that the rapid expansion of all phases of aviation is something that should take place now; in fact, the pace should be greatly accelerated, because it hasn't been very fast since the termination of hostilities. The vast majority of the people of the United States have never had the advantage of direct scheduled air transportation. These people are no less entitled to such service than are their more fortunate brothers who live in the larger centers of population.

The Government offers a premium mail service so that the public may dispatch its mail by the faster medium of air transportation. The majority of the people using this service receive only partial value from it; and in many instances their letters never leave the ground. There are many applicants whose services, whose experience, whose finances, have been offered to the Government for the purpose of providing this much needed direct air transportation. Those people have spent millions of dollars in order to comply with specified procedures in making such applications and in assembling required economic data to support them. Needless to say, they are entitled to hearings, and they are entitled to decisions on their cases within a reasonable length of time.

## Two Classifications

It has become customary to consider scheduled airline transportation in two classifications: (1) the presently certificated airlines, and (2) the so-called feeder airlines. The world is familiar with the splendid record made by the airlines in the United States over the past 20-odd years. We have watched their expansion with a great deal of pleasure and pride. I sincerely hope that there will never be a time when the pioneer airlines of this country cease to expand and to reach out into new fields. I also hope that these airlines may be permitted to profit by the increased traffic which will result from the development of the airline travel potential in those sections of the country which have never had opportunity to become acquainted with the advantages of airline travel.

It is the purpose, and place, of the feeder airlines whose applications have been, and will be, made to the Civil Aeronautics Board to supplement the present skeleton framework of trunk line air transportation. The development of a network of feeder airlines in the United States would as certainly mean increased revenue to the present airlines, the aircraft manufacturers, the accessory manufacturers, as it would be certain to provide employment for a substantial portion of that vast number of returning air force veterans who have been unable to find jobs in aviation.

It is extremely doubtful whether these new feeder airlines could be immediately self-sustaining, which would mean that perhaps some Federal expenditure would be required in development of this new phase of air transportation. Such an expenditure would not be without precedent, even though many people seem to look with horror upon anything which involves "Governmental subsidy," an expression which is used to create prejudice against what is actually financial aid in the development of a potentially profitable source of revenue to the Post Office Department. It was considered

DOUGLAS SKYTRAIN — The C-47, or DC-3 as it is known commercially, used by most non-scheduled contract carriers for cargo and passenger operations.

good business for 18 years to aid financially in such development in the case of the larger centers of population. That it was good business is borne out by the fact that all of the losses during these 18 years have been recovered and the Post Office Department now shows a very substantial profit. Gael E. Sullivan, Second Assistant Postmaster General, at a joint conference between airlines and the Post Office Department on January 9, 1946, said:

"Since the first air mail flight on May 15, 1918, the Government, the Post Office Department, has spent over $420,000,000 in handling air mail; and since that historic day 27 years ago we find today that we have liquidated the all-time deficit of the department in relation to the movement of mails by air. I ask you: Would you call that a subsidy, or would you call that one of the best investments that Government ever made in the system of private air enterprise in this nation?"

Why, then, are hands thrown up in horror at the idea of spending a little money for one, or two, or three years, to develop air transportation in other cities no less entitled to such development? Why is one town of 25,000 population entitled to encouragement and financial aid in the development of air transportation over an 18-year period and another town of 25,000 not entitled to any consideration, or to one cent of financial aid for the same type of development? Certainly, some of the profits to the Government from air mail should be used to develop air mail still further, to the end that the public may eventually have its *first class mail* transported by *first class means.*

Let us suppose, for the sake of argument, that those who have the power to expand our nation's scheduled air transportation system are extremely conservative, extremely skeptical of the prospects of local scheduled air service becoming self-sustaining. Suppose they completely ignore the urgent national need for a better balance within the industry, the tremendous increase in public knowledge and public acceptance of aviation as a prominent and important part in the nation's commerce. Suppose they should forget the tremendous resources in trained personnel, and manufacturing facilities, and the desperate need to provide jobs for veterans of the air services in line with Government policy toward returning veterans—and in no other industry is there such a large percentage of veterans for whom no employment is presently available—what reason under such circumstances would they have then to believe that small airlines feeding mail, passengers, and express to the trunk lines would become self-sustaining within a reasonable period of time?

If they had no other indication at all,

### The Author

JOSEPH J. MITCHENER, JR., executive director of the Feeder Airlines Association, Washington, D. C., has been flying for more than two decades—and this includes barnstorming, crop-dusting, flight instruction, aircraft sales, and scheduled airline work. He had his own aviation enterprise in Mexico for four years; this took in a flying school and a small air mail concession. In 1939 he joined the Civil Aeronautics Administration as flying specialist, and later had charge of the CPT Performance Division in Washington. For the last two-and-a-half of his four-and-a-half years with the CAA, Mitchener was superintendent of the CPT and War Training Service in the CAA Second Region, which embraces seven Southeastern states.

Leaving the CAA, he became associated with the Hawthorne flight organizations. He was in full charge of all civilian activities of these companies, as well as of Hawthorne Aero Supply. As general manager of Hawthorne Airways, he was one of the organizers of the Feeder Airlines Association and served as its treasurer until August of last year. He left Hawthorne two months later to accept his present post.

they would have positive proof in the record of All American Aviation, Inc., in the operation of the air mail pick-up now in its seventh year. This company has positively demonstrated that the availability of direct air mail service will increase the use of the service in the smaller communities, to the extent that a greater proportion of air mail will eventually originate from the smaller towns than originates from the larger centers of population. All American is the only feeder-type airline holding CAB certificate which has any extensive operational record.

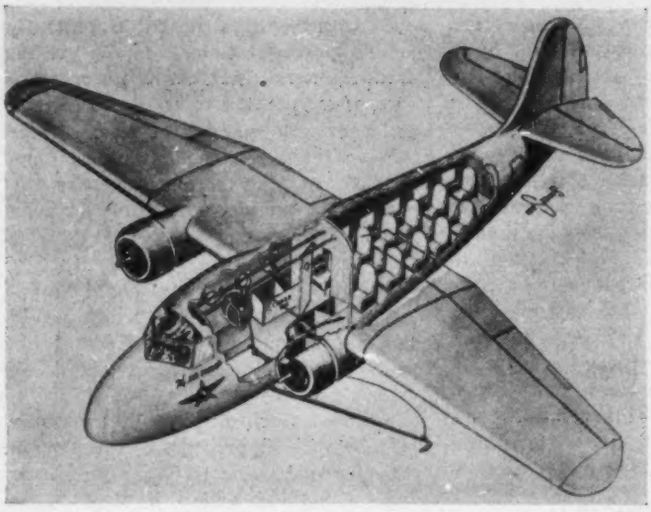
Another small airline was certificated in November, 1943, on an experimental basis, Essair, Inc., and these two are the holders of the only certificates of convenience and necessity which have been issued to new applicants for airline service since the creation of the CAB in the Civil Aeronautics Act, August, 1938, *seven-and-a-half years ago.*

Let us look briefly at All American's record. In its first year of operation, beginning in May, 1939, All American was paid almost $200,000 by the Post Office Department for carrying mail, the postal revenue from which was a good bit less than half of what the Government paid for the service. During the last fiscal year, the Post Office Department paid All American a little less than $600,000 for carrying mail, with a postal revenue of nearly $2,500,000. In other words, in six years the company has gone through the experimental period, long since passed the break-even period, and is now a very profitable source of revenue to the Post Office. This, mind you, on air mail and express only.

In a speech before the National Aviation Trades Association in St. Louis, December 7, 1944, L. Welch Pogue, chairman of the CAB, quoted pertinent figures from the record of All American and then had this to say:

"This is the service which was experimental in 1939. This is the sort of achievement which always makes me wary in setting limits on the growth of air transportation."

Every community in the United States could receive this type of service at a profit to the Post Office Department regardless of the fact that the community might be of insufficient size to justify the establishment of any sort of landing facility. What All American has been able to do in one section can be done by All American, or other companies, in other sections of the United States. I am sure my readers will agree that it would be a miracle if only that one particular section could produce a profitable feeder airline revenue.



PROPOSED BY AAA—All American Aviation's proposed type of passenger-pickup plane. The company's air mail pickup service is hailed by Mitchener.

No, there isn't any way that anyone can intelligently contend that air service should not be made available to every nook and cranny, and to every person, in these United States.

Is this going too far? Are we being carried away by our own enthusiasm? No! It's entirely practical. I don't mean, of course, that every farmhouse should have its mail delivered by airplane, but I do mean that every community of 5,000 population or more, and many of smaller population, should have its own landing facilities and should be provided direct scheduled air transportation service.

## Pick-up Service

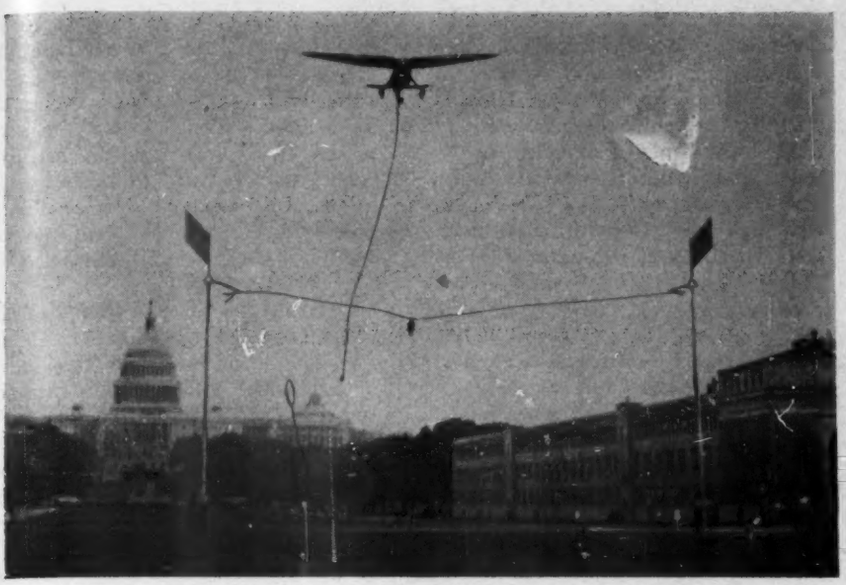
It would be well, and entirely feasible, if communities much smaller were provided air mail service by the pick-up system until circumstances warrant the provision of adequate landing facilities. Many cities and towns not now receiving direct air service are doing everything in their power to secure it. All aviation trade magazines, and some others as well, believe in the need for extensive expansion of air transportation. The trade associations are for it. The manufacturers of aircraft have long recognized that such expansion is inevitable. At least three manufacturers, and perhaps five, will place on the market aircraft designed exclusively for the purpose of meeting the highly specialized requirements of feeder airline service.

The three aircraft which will certainly be produced follow very closely in design the specifications set up by the Technical Committee of the Feeder Airlines Association. These men were not engineers, but they know what an airplane must be able to do in order to permit economy of operation in short haul air transportation. There has been much work done, and much is now in progress, on radio and navigational aids for short-haul service off the nation's airways.

Is there anyone, or any group, against expansion of service? Perhaps there may be a few misguided individuals, or even companies, but they are so few that they should present no problem. The CAB, through which body these new facilities may be offered to the public, is definitely not opposed to the healthy expansion of our airline system. The Board is required to exercise its best judgment, and use every care in determining which of the many applicants for air service are best fitted to perform services applied for, and which of them offer the most logical proposals for such service. It is a foregone conclusion that if the members of the CAB were thoroughly convinced that the people of the United States, and the Congress of the United States, favored establishment of a network of feeder airlines over this country to give it complete coverage—even though it were necessary to expend a substantial amount of money at the outset to encourage the use of such service—there would be no hesitancy on the part of the Board in awarding certificates to those applicants presenting sound proposals. A sufficient number of certificates should be issued by the Board to give adequate coverage to this country whether it requires issuance of 50 or 150 such certificates.

The other phase of aviation to be discussed in this article is commonly known as non-scheduled air transportation. This covers a broad field and may be roughly divided into three categories: the contract carrier, the charter carrier, and the private carrier.

To consider them in this order, let's take first the contract air carrier. Much activity has developed in this classification since the termination of the war. Before the war there was, in the United States, very little cargo or freight car-



AAA DOES ITS STUFF—An All American Aviation plane demonstrating its pick-up service over Washington's famous Mall. The Capitol is in the background.

ried by air, largely because of the adequacy of surface transportation at much lower cost than was possible by air. In some other countries where surface transportation has been poor, a substantial amount of air cargo has been carried over a period of a good many years. The contract carrier, as the name implies, contracts with certain parties to provide transportation for merchandise, or passengers, whenever such transportation is required; but does not offer such service to the general public without discrimination on regular schedules. The majority of this business is of course cargo, and it may be engaged in by the holders of CAB certificates or by those who do not hold any such certificate.

When this type of air transportation has been sufficiently developed it will be possible in most sections of the country for the ultimate consumer to purchase from his green grocer fruits and vegetables picked ripe the preceding day in the gardens and orchards of California, Texas, and Florida. It will be possible for the retailer in any section of the country to replenish his stock overnight from a distant market. Medicines, fish, flowers, and other perishables and valuable merchandise which deteriorates because of weather conditions or time consumed in transit will no longer be subjected to the long punishing trips of days and weeks which now tend to decrease their value or utility.

There is undoubtedly a very important place in commercial aviation of the future for the air freighter and cargo liner. The availability of such service will bring untold benefit to the public. There is a great deal to be done before contract air cargo will have reached the point where it can provide adequate service to the country with standardized rates and procedures, but there are a number of companies which propose, or are actively engaged in such operations, that are proceeding along the right lines to solve the problems that confront them.

Unfortunately for all of aviation, and for contract air carriers in particular, there are many who have gone into the business "hind part before," so to speak. These are mainly young pilots who have a desire to conduct aviation business of their own and want to continue to fly themselves. Their usual procedure is to go to a base for military surplus equipment and either pay cash for, or buy on time, an airplane—say, a C-47. A young man comes into my office, introduces himself and says:

"Mr. Mitchener, I have recently been released by the Army (or Navy) Air Forces, and I have bought a surplus C-47. All I need now is for you to tell me where I can go to be assured of regular loads on both ends of some contemplated run."

The young man probably has paid a small down payment on his equipment and must pay the balance as he earns. It very often happens that he has not even had his airplane certificated and although he probably knows this is necessary, he usually has very little idea of the cost involved. There are many exceptions, of course, but the thing that hurts us most is that this boy will probably lose every dime he has been able to save, and probably all he can borrow, because he is following his heart into a venture the economics of which he doesn't understand.

This type of operator not only does himself immeasurable harm, but does the more intelligently planned contract operation severe damage and hurts aviation as a whole. These young men get desperate in a short time and will carry partial loads for whatever the shipper will pay, and merely hope that at the far end of their trips they can find some other merchandise to help pay their return expenses. Most of them have no idea what their costs of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operation will be, or how much they would have to charge in order to show a profit.

What can I tell a young man who comes to me with such a plan? He has already invested his money and I just can't find it in my heart to tell him how little chance he has of success. The solution to this problem, it seems to me, would be a little program of education—either in the military services prior to the release of airmen, or perhaps an educational pamphlet which should be presented to each pilot who applies for a commercial license.

At present this type of air transportation is not specifically regulated either economically or as to safety. The CAB has recently held an investigation in order to determine what regulation, if any, is necessary for non-scheduled aviation. If it is considered necessary to regulate contract air carriers, then such regulation should certainly be held to the absolute minimum, for regulation in excess of what is demanded would definitely tend to discourage legitimate contract carrier operations at a time when this country can ill afford to discourage the advancement of any part of aviation. The scope of activity of the contract air carrier will also be limited by the number of points in the United States at which adequate airport facilities are available. The passage of the contemplated airport legislation is no less vital to the successful development of this phase of aviation.

The charter air carrier is the fellow for whom, as a rule, we have the most sympathy. There is no accurate way of determining the number of charter operators in the United States, but I think I am being conservative in saying that there are at least 400 or 500. The vast majority of these are the men who have constituted aviation's backbone for the past 30 years. They are the people who have provided general aeronautical services on local airports; the people who have provided aircraft which may be used in cases of emergency for trips to off-airline points, or trips that must be made when no airline seats are available, or when the urgency of the trip does not permit the passenger to wait for airline schedules.

In most cases, this charter business constitutes a relatively small part of the overall activities of the operator. The trips are usually few and yet the availability of this service has saved many a life, has prevented the loss of many millions of dollars to passengers, has saved countless hours of valuable time, and has been of great value in times of national emergency. Such a service, regardless of how little it may be used, is a decided asset to any community and should be available wherever adequate facilities exist. The cost of such service is necessarily high—in most instances from two to six times as high as airline fares. Most charter operators charge a flat price based on mileage, round trip from point of departure to destination and return—whether the passenger chooses to return, or whether he goes by himself, or carries as many other passengers as the ship can accommodate is his own affair. The trip costs the operator the same in any case. It is obvious that only emergency trips will be made by this means; that whenever it is possible to use the airlines, the difference in fare will leave the passenger no choice but to ride the airlines.

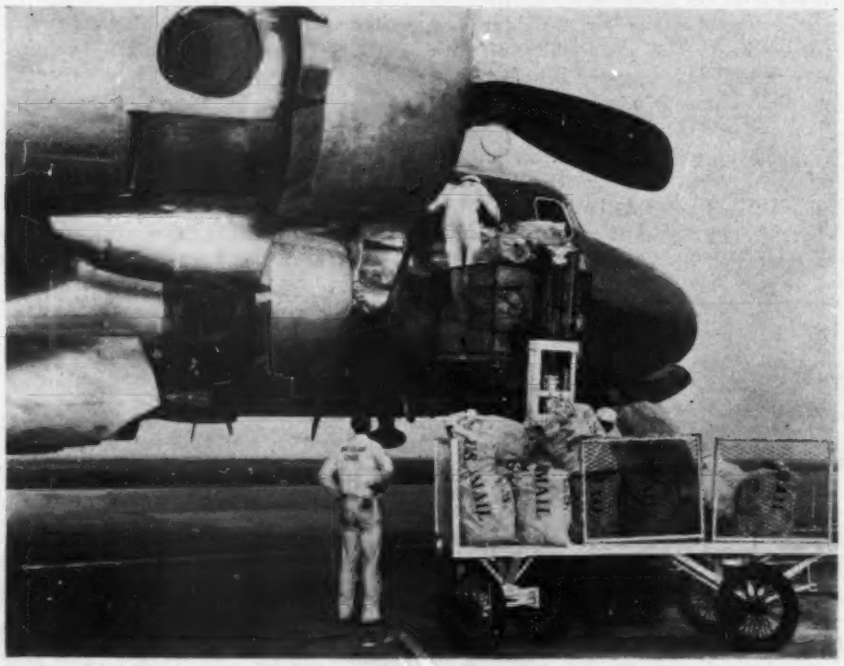
Only by the wildest stretch of the imagination could it be conceived that such operations would be competitive, or in conflict with scheduled air carriers, whether trunk or feederline. It is my estimate that from 85 to 90 percent of all existing charter air carriers are of the type I have described. There are others who have made some effort to obtain passengers on both ends of a definite route in the hope of being able to reduce fares sufficiently to justify a larger volume of business; a more steady, dependable source of revenue. There are others who are even rather closely approaching scheduled operation, although in no instance has it been possible to reduce fares to the level of airline fares without substantial loss in the operation.

## Restrictions Eased

The average charter operator has just recently been released sufficiently from restrictions to permit him to operate at a small profit under favorable circumstances. Most of them must combine the profits from student instruction, the sale of new and used aircraft, sightseeing, hangar rental, aircraft maintenance and overhaul, and charter work, in order to show this small overall profit. The elimination of any one of these services would, in many instances, mean that the total operation would no longer be profitable.

These base operators, or as they are now known, "aircraft service operators," are the bedrock on which all of aviation as it is today was built—the source from which the airlines originated. It is vital, not only that this solid aviation foundation be permitted to remain, but that it be greatly strengthened in order to support the growing aviation structure. The need for the construction of airports in furtherance of aeronautical utility has been mentioned several times previously. The charter operator who usually engages in many other forms of aeronautical activity is the man who can make feasible the operation and maintenance of the many new airports which we need so badly, and provide the services which will be required to make them useful.

The long suffering airport service operator. . . . The man who kept com-




AIR MAIL—Mitchener quotes Gael Sullivan as the authority for the fact that since 1918 the Government has spent nearly a half-billion dollars in handling air mail, but that today the all-time deficit has been liquidated. "Would you call that a subsidy," asks Sullivan, "or would you call that one of the best investments that Government ever made in the system of private air enterprise in this nation?" Above United Air Lines cargo handlers load up a Skymaster with air mail.

mercial aviation alive during the many years before aviation was generally accepted, before airlines could operate profitably. . . . The man who looked up with a smile when the various cities and towns began to take an interest in aviation and began to develop airports. . . . The man who was permitted to stand on the fringes when plans were being made to develop aviation by officials and prominent citizens, but whose advice was seldom called for. And he is the same man who has since been treated in many instances as though he were a necessary blot on an otherwise beautiful picture of civic aviation enterprise.

Without being told in so many words, he was given to understand that the people had provided, in their airport, a public facility, at public expense, of which they were very proud; enormous and beautiful multi-colored airliners were envisioned on the runways, and in the air about the field, with passengers passing between such airliners and an elaborate administration building. The airport service operator was given to understand that he and his operation injected a distasteful odor of commercialism into this otherwise untainted memorial to the city's progressiveness in aviation. The least he could do would be to provide the required services, keep his office out of the way in the hangar, keep out of the way himself, and pay most of the bills. If you think this picture is far-fetched, talk to a thousand or so of the operators over the country and check into things yourself. There will be—in fact, there *must* be—many more of the type of operations which usually conduct charter business if aviation is to advance in the future as we have every reason to feel that it should.

The charter operator is, at present, free from restrictive regulation.* However, the CAB is considering the advisability of imposing economic and safety regulation on all classes of non-scheduled air transport, which would include, of course, charter operations. If it is decided that non-scheduled aviation should be specifically regulated, then I feel that the Board must, in justice, define various categories, so that regulation may be imposed where it is needed, rather than to let such regulation apply generally and perhaps kill the 85 percent of non-scheduled carriers that need no further regulation, in order to get at those for whom it is intended. Where additional regulation is found to be necessary, please let's keep it to the bare minimum. Some fellow said one time, "There's no such thing as a little garlic," and over a period of many years we have learned to believe that the same thing is true of regulation. Naturally, we fear it.

The private air carrier is one which uses the airplane in its business, carries its own personnel, or its own merchandise, in its own equipment. Many companies have for years used airplanes for executive transportation purposes and for transportation of salesmen. However, this field has been limited by the same lack of utility which has made aviation costs excessive in all lines in the past. The opportunities for expansion of this phase of aviation are unlimited and again utility will make this expansion possible, but only when most of the cities and towns in the country become accessible to the airplane. Increased utility again will cause the increased use of aircraft, in turn enabling the manufacturers to reduce prices and make the use of aircraft practicable to more and more private individuals and concerns. The use of the airplane for the delivery of merchandise of various types is one which will unquestionably develop rapidly, with increased utility and lower

** Since this writing the Board has rendered decisions in three cases.*

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AIRBORNE LOBSTERS — Seafood flown by Air Cargo Transport from Portland, Maine, to the ready New York market. The author writes that "there is undoubtedly a very important place in commercial aviation of the future for the air freighter and cargo liner," pointing out that the "availability of such service will bring untold benefit to the public."

purchase and operating costs. At present there is no specific regulation of this type of transportation and, so far as I know, no such regulation is either contemplated or needed.

We are sometimes apt to forget that there is no unregulated aeronautical activity. All aviation is subject to certain basic regulations imposed by the CAB, and enforced by the CAA, for the safety and protection of pilot, passenger, the public, and public property. These regulations require that certain standards be maintained for airworthiness of aircraft, and competency of pilots and mechanics, which are, in the main, adequate and many of us believe still unduly burdensome in some respects. The CAB and the CAA are deserving of our heartfelt gratitude because of their sincere efforts to eliminate needless regulation and to simplify that which must be retained.

I would like to offer a few suggestions which I believe, if followed, will have a very important bearing on the future of each of these forms of air transportation. A complete feeder airline system should be established throughout the entire country. The most important factors in accomplishing such a program are, in my opinion: (1) the early adoption of Senate Concurrent Resolution 25, introduced by Senator Warren G. Magnuson of Washington, and House Concurrent Resolution 64, introduced by Congressman Jennings Randolph of West Virginia, which would, in effect, place the Congress on record as supporting CAB action in granting a substantial number of certificates to the applicants whose cases are pending before it; (2) the early passage of some compromise of the McCarran and Lea Airport Bills; and (3), of course, early action by the CAB itself in the issuance of certificates to deserving feederline applicants.

The growth of contract carrier operation should be encouraged to the fullest possible extent, and important factors in encouraging this development are, in my opinion: (1) early passage of some compromise of the McCarran and Lea Airport Bills; (2) imposition of the least possible restrictive economic and safety regulation if it be decided that *any* specific regulation is required; and (3) introduction by the military services and civil authorities of an educational program or pamphlet for the purpose of discouraging those who propose to engage in contract air transportation who will, by reason of lack of knowledge of the business, lack of adequate preparation of their ground connections, lack of capital, or for any other reason, do serious injury to themselves as well as to the *sound* contract air carrier.

The charter air carrier, or charter operator, at least most of them, is never going to be very big as far as that activity is concerned anyway, but everything possible should be done to allow him to take advantage of any such business that may become available to him. His ability to make a profit on his types of operation is of very great importance to all of the rest of aviation. I believe he can be best aided by: (1) early passage of some compromise of the McCarran and Lea Airport Bills; (2) permitting him to continue to operate without specific economic and safety regulation, except perhaps in cases where it is found that regulation is essential, in which case let's have definitions which will regulate only those which require and can stand additional regulation; and (3) continuance of efforts by the CAB and the CAA to reduce further and simplify existing regulations which tend to complicate his business and discourage his potential customers.

In the case of the private air carrier the early passage of some compromise of the McCarran and Lea Airport Bills is most important. Elimination or simplification of regulations is no less important to him than to the others.

To these four, and all other segments of the aviation industry, the greatest good will come through education of the public to the advantages of using the airplane. It seems to me that the most practical and certainly one of the best means of providing this education is by the establishment of aero clubs in every town of any size in the country. These clubs should not consist of a few pilots and instructors and students of flying, but should include the mayors, the members of the city commissions, at least the officers of the chambers of commerce, and all of the towns' more prominent and civic-minded citizens. These clubs should be designed to keep each town abreast of aviation progress, aware of what is being done in other communities of similar size, of what may be done in case of any Federal aid that may be available, or what legislation should be sponsored in the interest of the community, and what should be fought. They should be prepared to see that their towns do not "miss the boat" when it comes to developing their potential aviation business.

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## Latin American Airways To Serve Ecuador Cities

Loaded with two-score passengers, baggage, household furnishings, and equipment to outfit its new base of operations, three Latin American Airways *Skytrains* took off from Newark Airport last month for Guayaquil, Ecuador. The new company is the first national airline in Ecuador.

A country having only 650 miles of railroads and 5,100 miles of passable roads, Ecuador's transportation system is exceptionally difficult during the long rainy season. The Government has given LAA permission to use established fields and facilities in that country to further the air transportation project, and has undertaken to pay for any necessary construction after which the improvements become Government property.

With New York headquarters at 84 Beaver Street, LAA is under the presidency and directorship of Henry E. Rohlsen. Other officials of the airline include Narcisco Basso, Jr., vice president; Albert R. Mesa, secretary; Walter R. Kiernan, treasurer and general counsel; Alfonso Loor, traffic coordinator; De Los E. Howard, superintendent of maintenance; and Gonzalo Terneos, general manager. Basso, Mesa, and Kiernan are also on the directorial board.

Latin American Airways will haul passengers and freight, serving the following points: Quito, Guayaquil, Esmeraldas, Bahia, Manta, Salinas, Loja, Cuenca, Riobamba, Machala, Puerto Bolivar, Ambato, Latacunga, Ibarra, Tulcan, Daule, Babahoyo, Vinces, and Quevedo. Equipment includes three DC-3s and three Grumman amphibians.

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*Says Charles H. Babb . . .*

# Foreign Fields Are Greenest For Air Cargo

FROZEN tundra, steaming jungles, barren deserts and towering mountains have for centuries combined to limit or preclude the construction of adequate means of surface transport in many countries. As a consequence, trade and commerce, and its corrollaries, economic and social development, were largely confined to ocean harbors and the shores of inland waterways. Only Western Europe and North America were able to break the shackles of natural barriers and provide an intensively developed system of interior surface transportation.

Throughout most of the world, economic development was sorely handicapped. Rich, agricultural areas, stands of timber, mineral deposits and other sources of wealth lay untapped due to lack of transport.

Then came the airplane. For many years, in fact until World War I, it was generally regarded as a scientific freak. The "flying machine" found its principal use as an attraction at county fairs. Some of today's leaders in aviation, including Glenn L. Martin, president of one of the leading airplane companies, got their start as "death-defying aeronauts," flying bamboo crates from the infields of race tracks.

As a result of military use of the airplane during World War I, larger, more dependable planes were evolved, and a few farsighted visionaries began to see some possibilities of utilizing the airplane as a commercial vehicle for the transportation of passengers and freight. Early experiments in this field were given impetus because of the availability of surplus military aircraft at low prices. The first air mail routes in the United States were flown in war surplus aircraft; they were used by the barnstormers of the Twenties who fanned the first faint spark of commercial aviation; a few oil and mining companies made exploration flights and began to see some utility in the airplane. Thus was born the air transport industry.

In Europe and the United States, where aviation was principally developed, the emphasis has been on mail and passenger service until now. With excellent networks of railroads, highways and inland waterways, few saw any potential in flying cargo. The cost per ton-mile by air was prohibitively higher than by surface transport. But in many parts of Alaska, Northern Canada, Latin America and other sections of the world where surface transportation facilities were either nonexistent or woefully inadequate, the airplane offered a practical solution to the age-old problem of moving cargo quickly and by comparison with existing forms of transport, economically.

Charles H. Babb

## Good Returns

Alaskan dog-sled journeys, requiring days, gave way to airplane flights consummated in minutes. In Canada, planes were equipped with skiis in Winter, floats in Summer, and the endless frozen North began to yield its treasures of gold, silver, radium, and other wealth, as machinery for the mines and homes, and supplies for the miners were flown in. Entire towns in Northern Canada have been built and kept supplied entirely by air.

Latin American natives hacked runways in the jungle fastnesses adjoining rich, but hitherto inaccessible ore bodies and soon boilers, stamping mills and other huge and heavy mining machinery was functioning on the spot. The equipment was cut to fit the space and carrying capacity of the airplane —cut apart with acetelyne torches, reassembled at the mine with welding torches.

High in the mountains of Central and South America grew the world's finest coffee. Packed in bags and transported to the seacoast by burro train, over long and tedious trails, the coffee deteriorated in quality, and due to the time in transit, even the low cost of burros and peon drivers ran into heavy expense. Again natives cleared mountain-top landing strips and in came the airplane to fly the coffee to waiting ships in minutes instead of the required days by burro train, and at much lower cost.

Chicle for the chewing gum champers, rubber, quinine and other drugs, ore concentrates, rare herbs, and countless other products of mine, field and forest flew out; machinery, supplies, food, clothing, medicines, tools and implements, flew in.

Throughout the world save in Europe and the United States, the airplane became a winged workhorse. Down in Central America little known TACA Airways piled up an air freight record that exceeded the combined annual tonnage carried by the 20 great airlines of the United States. In Canada, the so-called "bush" airlines, many owning less than a half-dozen single engined planes, also flew tonnages which put to shame our crack transcontinental airlines.

In Australia, Africa, China and scores of other countries, air freight became an accepted, economical form of transportation. Despite unlimited cheap labor in many of these countries, problems of terrain gave air transport, with its ability to surmount all natural barriers, a decided economic advantage.

A majority of the airplanes engaged in these far-flung cargo operations were cast-offs from the established airlines, and the majority of them were from the United States. As our domestic airlines, spurred on by intense competi-

# Here's the Inside Story of the New Martin Airliners!

Now being built for nearly half of the nation's airlines, new Martin transports offer the last word in speed, luxury, dependability. While interior arrangements vary according to the needs of the different lines, photos on this page will give some idea of how you'll travel next year when you fly the lines that offer these ultra-modern Martin airliners! THE GLENN L. MARTIN COMPANY, BALTIMORE 3, MARYLAND.

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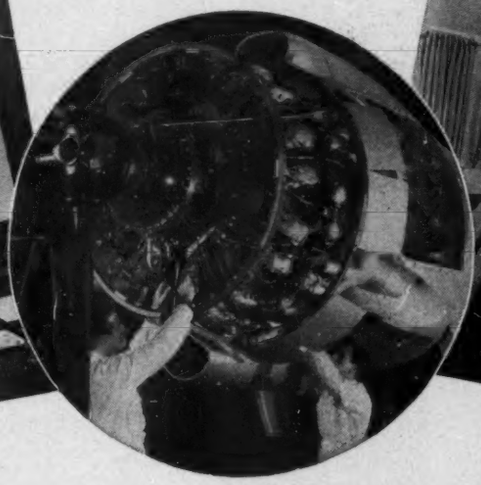

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**PRECIOUS METAL VIA TACA—Silver about to be loaded into a TACA cargoplane. "Down in Central America," says Babb, "little known TACA Airways piled up an air freight record that exceeded the combined annual tonnage carried by the 20 great airlines of the United States."**

tion, abandoned Fords, Fokkers, Bellancas, Pilgrims, Condors and Stinsons for Boeings Douglases and Lockheeds, the bush, arctic, desert and jungle airlines snapped up the second-hand planes. While obsolete for the carriage trade airline passenger business, they were in fine shape, good for many hundreds more hours of flying.

Most of these planes were purchased through aircraft brokers who acted as agents for the selling airline, or who purchased the aircraft, reconditioned them, and sold for their own account. Among the early pioneers in this field was Charles H. Babb. But Babb set out to build more than a second-hand airplane business. He believed that no airplane should be sold that was not suited to the job in question, and in furtherance of this belief, insisted on knowing the exact conditions under which a customer expected to operate. If the fields to be used were located in high altitude country, Babb made certain that the airplane recommended could take off from such altitudes with a worth-while pay-load. He inquired as to the length of each air strip to be used, the height of obstacles to be cleared on the approaches, the condition of the fields, whether hard, soft or sandy; the kind of cargo to be flown. He looked into such matters as maintenance facilities, and pilot experience. In effect, he insisted on tailoring the aircraft, insofar as practicable, to the job they were to do.

Special cargo doors and hatches might be designed for one job; another would necessitate oversize balloon tires for use on soft fields; still another required quickly interchangeable skis, floats and wheels. Ramps, hoists, winches, and other aids to handling cargo were devised by Babb's crews.

As word spread of this engineered-to-the-job service, buyers from all over the world brought their problems to the Babb Company. Many a foreign airline and countless air cargo operations were completely outfitted down to spare tires, spark plugs, plane and engine parts.

The company grew into the world's largest airplane and parts sales organization, with offices, hangars and warehouses in New York, Burbank, Seattle, Anchorage, Montreal and Mexico City, and with representatives in many foreign countries. As the largest supplier of flight equipment for foreign cargo airlines, Babb is in a position to forecast with authority the trend which these operations will take now that new and surplus aircraft are again available.

Interviewed during a recent visit to New York, Babb said:

"History is repeating itself. The rapid growth of commercial aviation following World War I released hundreds of planes, obsoleted for airline use by competition, but ideally suited to the requirements of both passenger and air cargo operations in many foreign countries. Purchased at depreciated prices, this equipment made possible the establishment of many foreign airlines which have proved a Godsend to the economy of the territories they served. Many of today's important foreign airlines such as Canadian Pacific Airways in Canada, LAMSA in Mexico, TACA in Central and South America, made their start with a few second-hand planes from the United States. Now these airlines fly equipment on a par with the best in the world.

*(Concluded on Page 36)*

**FLYING HORSE WITHOUT WINGS—Roped tight, this strange cargo is just an inkling of what is shipped by air in Canada. Babb points out that "entire towns in Northern Canada have been built and kept supplied entirely by air."**

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|---|---|---|---|---|
| SHOES | PAIR | 1 LB. | $ .58 | $ .27 |
| NEWSREELS | CAN | 25 LBS. | 14.40 | 6.73 |
| LOBSTERS | EACH | 1½ LBS. | .73 | .40 |
| BABY-CHICKS | CARTON (100) | 12 LBS. | 6.61 | 3.23 |
| STRAWBERRIES | CRATE | 11 LBS. | 4.36 | 2.96 |

**AMERICAN AIRLINES** *System*

THE NATIONAL AND INTERNATIONAL
ROUTE OF THE FLAGSHIPS

AMERICAN AIRLINES announces reductions of from 35% to 65% in AIRFREIGHT rates covering a wide range of products shipped within the United States and to Mexico. The items listed above are but a few of the many commodities that benefit by the new low tariff, which is graduated on a volume basis.

Now, with rates slashed, it is practical to ship by air many products which, because of their low margin of profit, formerly had to reach their markets by slower means. Using AIRFREIGHT, it is possible to serve present markets more speedily, and many new markets automatically are brought within reach. Speed of delivery assures retailers of receiving goods first, airfresh and ready to sell, making large inventories unnecessary.

For you, AIRFREIGHT may open up market possibilities until now fenced off by distance. We shall be glad to give you details on the low cost of this speedy and convenient air delivery service.

# Cargoplane TO THE FORE

The merry month of May was not so merry this time on the labor-management front; but even at this writing, when the opposing sides are still stalemated, the cargoplane has moved up a few more notches in popular esteem.

Less than a year after the end of the war, the commercial freight-carrying plane can be said to have come into its own--"into its own" in a sense that its acceptance is no longer questioned by the majority.

There will be bigger planes, better planes, faster planes, more economic planes; the shipper knows this, but he is also not unaware of the fact that air cargo has a definite place in today's economy. Proof of this? Reams of it come across our desk every week.

The other day we asked the top executive of a New York packing-and-shipping firm what effect, if any, the coal strike had had upon his business. "If any" turned out to be "plenty". Thousands of packages needing immediate delivery to the areas most affected by the walkout went via American Airlines, United Air Lines, and TWA air freight services. Air express also benefited.

What interested us particularly was the unsolicited information that some 35 of the company's clients--all well-known department stores and manufacturers --had specifically indicated a preference for air shipment.

But of even greater importance, and certainly a signpost of the current trend, was the executive's statement that some of his clients who had been "initiated" into shipping-by-air through the emergency brought on by the mining wage disagreement, were now sticking to airborne shipments wherever possible. Which is at least one argument against those diehards who insist that the airplane will never "compare" as a freight carrier.

(They used to say the same thing about the freight train vis-a-vis the waterborne carrier. Incidentally, the Atchison, Topeka and Santa Fe Railway has evinced interest in the cargoplane to the extent that it has organized Santa Fe Skyway, Inc.)

What the non-scheduled airlines have done in the air cargo field in the past year or so is nothing less than air transportation history. Their all-cargo airplanes run into the hundreds, most of them of the Douglas Skytrain type, capable of carrying 5,000 pounds of freight each. The Douglas Skymaster, able to take aboard loads of nearly 8,000 pounds, is also in service, as well as the Curtiss Commando with a payload exceeding 10,000 pounds. And it is known that quite a few of these operators are waiting for the commercial release of the Fairchild Packet.

When the railroad strike threatened, and it was coincidentally made known by the Air Transport Association of America that the major scheduled airlines' 454 planes in domestic service were carrying loads close to capacity and flying at the unprecedented average of 11 hours a day, the War Department crooked a beckoning finger at the non-scheduled airlines. One source offered the rough estimate that if the cargoplanes of the non-scheduled operators were pressed into national service in the event of a declaration of emergency by the Government, four-and-a-quarter million ton-miles would be flown every 24-hour period. Add to this the cargo capacity of the scheduled airlines.

This is no small peanuts, especially when one takes into consideration the newness of commercial air freight on a major scale. Set beside this the following four facts:

1. The scheduled airlines with tariffs set up for air freight will extend their services.

2. The scheduled airlines without air freight schedules at the present time will enter into this field as soon as possible.

3. The non-scheduled airlines surviving the initial formative months will extend their fleets and areas of operation.

4. The inevitable increase in air cargo business will attract more operators to the field.

While it is true that the cargoplane has stood in valiantly in numerous cases of emergency, it is a fallacy to construe it as an instrument valuable only during crises. Nothing can be farther from the truth.

It is amazing what strides commercial air cargo has made in the last year-and-a-half. At the close of 1944 this type of transportation was in a sad state. In a widely circulated survey of shippers published in AIR TRANSPORTATION at that time, it was reported that there was "an astounding lack of information on the part of the shipping public regarding the services and advantages offered by air cargo".

That's all changed now. In the short space of time thousands of items have sprouted wings. If the cargoplane made headlines because it was called upon to help in a period of emergency, it was only incidental news to those in the industry. The real great story is written in its normal daily pursuits.

# UNITED STATES NONSCHEDULED-CONTRACT AIR CARRIERS AND INTRASTATE AIRLINES

| COMPANY | ADDRESS | OFFICER | AREA OF OPERATIONS | AIRPLANES (in operation) DC-3 | DC-4 | Constellation | Commando | Twin Cessna | D18S | 247-D | Norduyn | Hudson | Cansor | T-50 | BT-13 | AT-17 | Ford | Ercoupe | AT-6 | Taylorcraft | Aeronca | Cub | Lodestar | Grumman | Waco | PT-17 | Electra | C-47 | AIRPLANES (on order or being modified) DC-3 | DC-4 | Packet | D18S | Norduyn | Cub | Seabee | AT-11 | UC-45 | Grumman | Cargo only | Passengers only | Cargo and Passengers |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Air Cargo Transport Corp. | Empire State Bldg., N. Y. C. | H. Roy Pennell, Pres. | U. S. and Cuba | 16 | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | | | | | | | | | ✓ | | |
| Air Charter Services, Inc. | Kansas City Airport, Kansas City, Mo. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ✓ | | |
| Air Freight, Inc. | 375 Broad St., Newark, N. J. | John K. Hughes, Pres. | East Coast | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ✓ | | |
| Air Services, Inc. | National Airport, Wash., D. C. | Beverly E. Howard, Pres. | United States | | | | | 2 | 1 | | | | | | | | | | | | | | | | 1 | | | | | | | | 1 | 1 | | | | ✓ | | |
| Air Tours, Inc. | Put-In-Bay, Ohio | M. Hersberger, Pres. | Lake Erie Islands | | | | | | | | | | | | | 3 | | | | | | | | | | | | | | | | | | | | | | ✓ | | |
| Air Trails, Inc. | 348 S. Maple Dr., Beverly Hills, Calif. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Air Transport Corp. | 999 Madison Ave., N. Y. C. | A. L. Patterson, Pres. | U. S. and Mexico | 4 | | | | | | | | | | | | | | | | | | | | | | | | | 15 | 12 | | | 3 | | | | | | ✓ | | |
| Aircab | 551 5th Ave., N. Y. C. | Walter Carlson, Pres. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Airgo, Inc. | Putts Field, Spokane, Wash. | H. R. Wallace, Pres. | | | | | | | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| All Service Airlines | 2475 W. 133 St., San Leandro, Calif. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| American Air Export & Import Co. | Park Central Hotel, N. Y. C. | T. J. Carroll, Pres. | N. J., No. Car., Fla., P. R. | 7 | | | | | | | | | | | | | | | | | | | | | | | | | 2 | | | | | | | | | | ✓ | | |
| American Air Express Corp. | 522 5th Ave., N. Y. C. | J. C. Lambert, Pres. | United States | 3 | | | | | | | | | | | | | | | | | | | | | | | | | 12 | | | | | | | | | | ✓ | | |
| American Air Transport | 332 S. Michigan Ave., Chicago | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Arizona Airlines, Inc. | P. O. Box 1181, Tucson, Ariz. | E. J. Montgomery, Sr., Pres. | West U. S. and North Mexico | | | | | 2 | | | | | | | 1 | | | 1 | | | | | | | | | | | | | | | | | | | | ✓ | | |
| Arizona Airways, Inc. | Phoenix, Ariz. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ✓ | | |
| Atlantic Central Airlines | Newark Airport, Newark, N. J. | Bowman R. Otto, Pres. | New Jersey | | | | | | | | | | | | | | | | | | | 3 | | | | | | | 3 | | | | 1 | | | | | ✓ | | |
| Atlantic-Western Airlines, Inc. | Municipal Airport, Danville, Va. | V. D. Lovelace, Pres. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ✓ | | |
| Bird Airways | Municipal Airport, Long Beach, Calif. | Forrest M. Bird, Pres. | U. S., Canada, Mexico | | | | | 2 | | | 1 | | | | | | | | 1 | 2 | 1 | 2 | | | | | | | | | | | | | | | | ✓ | | |
| Bluebird Airlines | Municipal Airport, Chicago | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bluegrass Airlines | Russellville, Ky. | B. M. Stuart, Dir. | Kentucky | | | | | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ✓ | | |
| California Eastern Airways | 406 Montgomery St., San Francisco | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Caribbean Air Transport, Inc. | News Tower Bldg., Miami | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Caribe Airways Line | 36 St. Airport, Miami | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ✓ | | |
| Central Airlines, Inc. | 637 Commerce Exch. Bldg., Okla. City | G. O. Marchant, Pres. | Oklahoma and Texas | | | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ✓ | | |
| Century Air Enterprises, Inc.* | 246 W. 44 St., N. Y. C. | Lou Klein, Pres. | United States | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ✓ | | |
| Challenger Airlines, Inc. | 218 Felt Bldg., Salt Lake City | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Chesapeake Airways, Inc. | Municipal Airport, Baltimore | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ✓ | | |
| Coast to Coast Air Cargo Lines | Marine Bldg., Galveston, Tex. | Andrew J. Burke, Pres. | U. S., Central and South America | 3 | | | | | | | | | | | | | | | | | | | | | | | | | 3 | | | | | | | | | | ✓ | | |
| Columbia Airlines, Inc. | 810 N. Charles St., Baltimore | F. R. Crawford, Pres. | Maryland | | | | | | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ✓ | | |
| Columbia Skyways | Boeing Field, Seattle | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Continental Air Charter | Los Angeles Airport, Los Angeles | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Continental Sky Van, Inc. | 995 Market St., San Francisco | Louis M. Clark, Pres. | United States | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ✓ | | |
| Dal-Air Lines | Love Field, Dallas | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dartmouth Airways, Inc. | 4 Allen St., Hanover, N. H. | R. J. Putnam, Pres. | New York-New Hampshire | | | | | 3 | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | 5 | 10 | | | | |
| Davis Airways, Inc. | Logan Airport, Boston | H. M. Gollance, Pres. | East Coast and Cuba | 2 | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | | | | ✓ | | |
| Dixie Air, Inc. | Montgomery, Ala. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Domestic Air Express | Municipal Airport, Los Angeles | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Duluth Airlines, Inc. | Hotel Spalding, Duluth, Minn. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eagle Air Freight | Benj. Franklin Bldg., Santa Barbara, Calif | J. B. Mahon, Pres. | Los Angeles-San Francisco | | | | | | | | 2 | | | | 1 | | | | | | | | | | | | | | | | | | 3 | | | 3 | | | ✓ | | |
| East Coast Aviation Corp. | Hillsgrove, R. I. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Empire Air Lines, Inc. | Lewiston, Idaho | Bert Zimmerly, Pres. | Idaho | | | | | | | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ✓ | | |
| Empire Airlines, Inc. | LaGuardia Airport, N. Y. C. | Dean Alfange, Pres. | New York State | | | | | 3 | | | | | | | | | | | | | | | | | | | | | | | | | 3 | | | | | | ✓ | | |
| Fireball Air Express | Municipal Airport, Long Beach, Calif. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Flamingo Air Service, Inc.** | 30 Broad St., N. Y. C. | Robert W. Bowen, Exec. V. P. | United States | 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ✓ | | |
| G&G Airways | Tucson, Ariz. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GI Aerial Freight Lines | Municipal Airport, Oakland, Calif. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Gilbert Air Freight, Inc.* | 527 W. 28 St., N. Y. C. | Milton Gilbert, Pres. | N. Y.-California | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ✓ | | |
| Globe Freight Airline | 739 Main St., Hartford, Conn. | J. N. Laneri, Pres. | Boston-New Orleans | 1 | | | | | | | | | | | | | | | | | | | | | | | | | 2 | | | | | | | | | | ✓ | | |
| Golden Gate Air Lines | Municipal Airport, Oakland, Calif. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Grand Canyon Scenic Tours | Tucson, Ariz. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Great Circle Airways, Inc. | 905 Shoreham Bldg., Wash., D. C. | R. C. Mealey, Pres. | North and South America | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ✓ | | |
| Hammond Ferner Air Service | Jackson, Mich. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Helicopter Air Transport, Inc. | Wilford Bldg., Philadelphia | E. Burke Wilford, Pres. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hooster Air Freight Corp. | 103 Park Ave., N. Y. C. | J. E. Rogers, Pres. | United States | 5 | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | | | | | | | | | ✓ | | |
| Inter-Continental Aviation | New York Airport, Newark | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intercontinental Air Lines | Newark Airport, Newark | W. A. Stennett, Pres. | East Coast, Puerto Rico | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ✓ | | |
| International Airlines, Inc. | 141 W. Jackson Blvd., Chicago | J. E. Griffith, Pres. | U. S., Canada, Mexico | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ✓ | | |
| International Airlines | Empire State Bldg., N. Y. C. | Leonard Talcher, Pres. | U. S. and South America | 6 | | | | 7 | | | | | | | | | | | | | | | | | | | | | 2 | | | | | | | | | | ✓ | | |
| Island Air Ferries, Inc. | P. O. Box 21, Bohemia, N. Y. | Murray Hawley, Pres. | Long Island-South, New England | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ✓ | | |

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# headlines

## UNDER THE DEADLINE

Charles A. Rheinstrom, pioneer in airline service, has resigned as a director and vice president-sales of American Airlines. He will head his own firm of aviation consultants. . . The B-29 Superfortress is doing all right for itself. Its latest record is in the altitude category: 44,200 feet, carrying a payload of 4,400 pounds. . . May 21 is the day air service will link the capitals of the United States and Germany. American Airlines, flying Douglas Skymasters, will make the run from Washington via New York, Newfoundland, Eire, Amsterdam, and Frankfurt. One-way fare from capital to capital is $464.40, round trip $839.10, plus 15 percent tax.

Foreign airplanes not on regularly scheduled flights must obtain special permission for landing in Colombia. A permit must be requested at least three days before arrival. . . Washington has aired the news that the Germans built 10 big helicopters able to climb 18 feet a second with 10 passengers aboard plus a full load of fuel—and then along came the Allied planes and bombed out the plant. Two machines in flyable condition are in existence. . . President Harry S. Truman has signed the bill authorizing $500,000,000 in Federal expenditures during the next seven years for an airport construction and development program. The law requires that States and municipalities match the Federal money.

That airline snarl in Italy has resulted in the United States Department of State refusing to ask the Italian Government to implement a contract that would make TWA the sole foreign participant in a monopoly of Italian air routes. The British were also given the cold shoulder by the State Department who had been asked by the British Ambassador to induce the Italian Government to give British aviation a share in Linee Aeree Italiane. Jack Frye, president of TWA, recently indicated his unwillingness to be Britain's partner in Italy on the grounds that it was neither practicable nor effective.

Brigadier General A. C. Critchley, recently resigned director general of the British Overseas Airways Corporation, is heading a new British air transport company which will operate world-wide charter services. Skyways, Ltd., is the name, and it will use Avro York and Lancaster equipment. The company already holds contracts for flying employes of the Anglo-Iranian Oil Company between Britain and the Persian Gulf. Flying tourists to the Swiss Alps is also part of Skyways' plans. . . And then there is West African Airways which has been formed to fly passengers and freight in Gambia, Sierra Leone, Nigeria, and the Gold Coast.

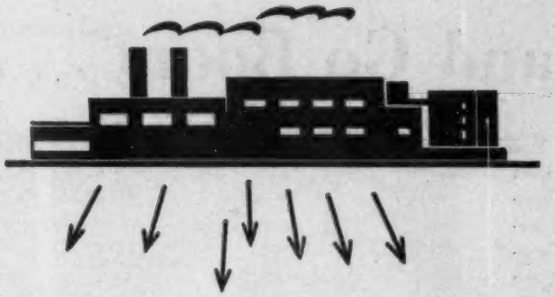
L. Welch Pogue's resignation as chairman of the Civil Aeronautics Board has been accepted by President Truman. Pogue has been asked by the Chief Executive to serve as a delegate to the first annual assembly of PICAO at Montreal before his resignation becomes effective. . . Bids for the construction of the proposed international airport at Maracay, Venezuela, will be called for about the end of July by the Ministry of Public Works. . . Delta Air Lines' seventh Skymaster has arrived, thus completing the company's fleet of DC-4s.

Three million air travelers have passed through New York City's Air Lines Terminal since it was opened on January 26, 1941. . . The Waterman Steamship Company has asked the CAB to reconsider an application submitted more than five years ago for freight and passenger service between New Orleans and Puerto Rico. . . According to BOAC, it will apply to the CAB for a reduction of its plane fares from Baltimore to Bermuda. The present one-way fare of $80 would be reduced to $70, and the round-trip rate from $144 to $126.

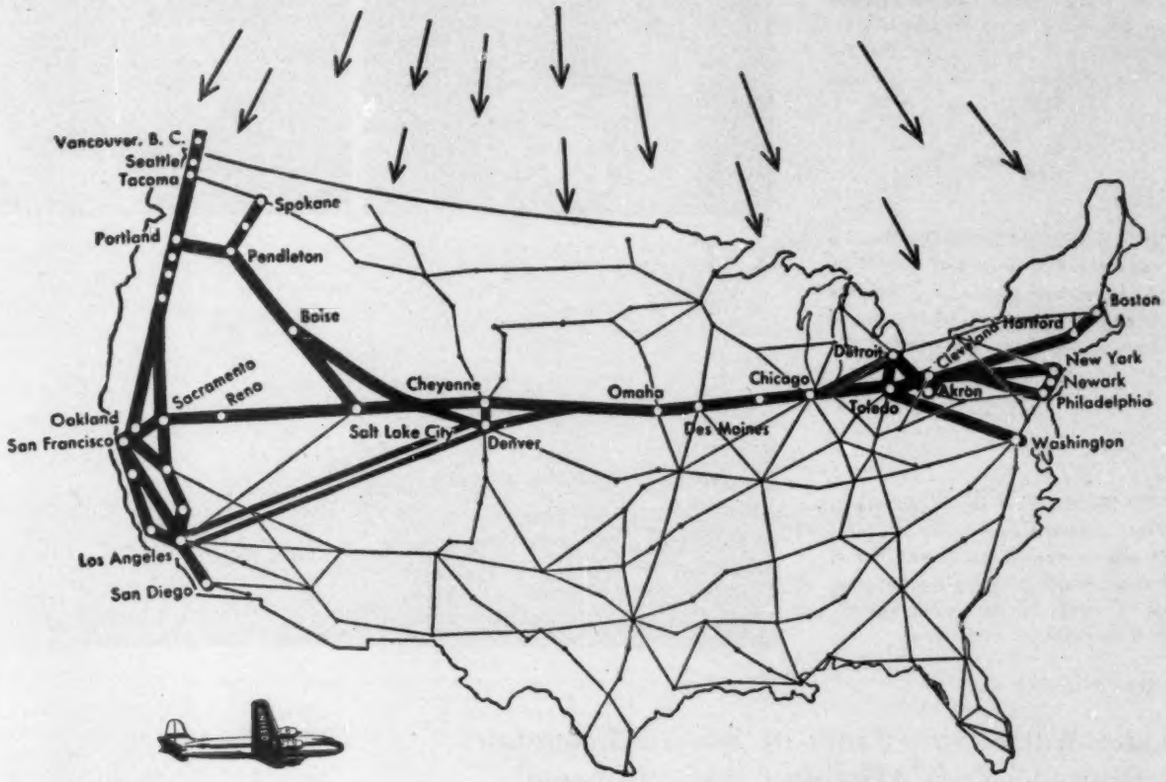
The Office of Price Administration has permitted wholesalers of fresh fruits and vegetables the same dollar-and-cents margins on airborne produce as for produce shipped by other means. . . Report from LaGuardia Field is that European air cargoes have grown to such heights that the customs facilities are snowed under. Wanted: a speed-up in clearance. . . J. L. Neal, president of Universal Skyways, Little Rock, Arkansas, is establishing glider air freight service between New Orleans and Chicago. He would tow 8,000 pounds of perishables per trip at small cost in addition to the expense involved in operating the Skytrain towplane. Neal's application for a permit is still pending.

Charter non-scheduled flights between Newark and Cape Cod will be inaugurated by Veterans Air Lines this month. DC-3 equipment will be used. . . According to J. F. Follman, Jr., manager of the Bureau of Personal Accident and Health Underwriters, the majority of the companies writing commercial accident and health insurance will, in the near future, continue the extension of air travel coverage, without additional cost to the insured, while engaged in passenger travel on regular airlines anywhere in the world, and greatly extend coverage for passenger travel in private aircraft.

C. Bedell Monro, president of PCA, has been elected to the Greater National Capital Committee of the Washington Board of Trade.



# Save precious time in shipping . . .




## Use UNITED AIR FREIGHT Service

In these critical production days—when every shipping minute really counts—traffic control men solve many problems by using the fast, economic AIR FREIGHT SERVICE of United Air Lines.

Straight across the country from coast to coast—on the short, direct Main Line Airway and connecting with other lines throughout the country—big United Cargoliners fly day and night . . . making prompt deliveries in all parts of the country . . . saving time, money and delay.

Whether you are on the sending or receiving end, United's new low-priced freight service will give you a big lift. You'll get your shipments where you want them—on time—in time!

United's staff of experts are ready to explain how AIR FREIGHT SERVICE can help you. Cuts down on shipping delays, eliminates excessive inventories and unnecessary warehousing. Pickup and delivery provided in many cities.

Remember, almost everything can be shipped by air now. And remember, too, almost everywhere is served by United Air Lines. For complete information, write for your copy of United's new INFORMATION BOOKLET on AIR FREIGHT SERVICE.

**Address: Air Cargo Division, United Air Lines,**
**231 South LaSalle St., Chicago 4, Ill.**

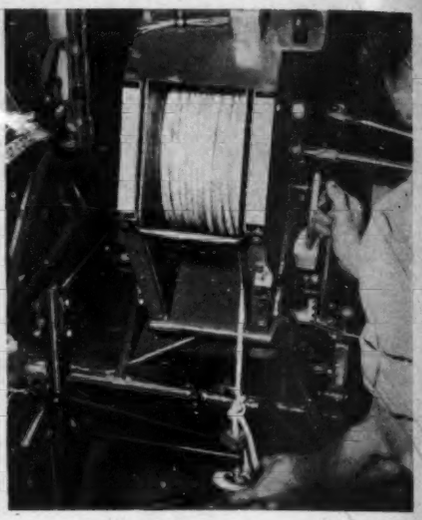
## UNITED AIR LINES

***(Also International Air Freight Carried)***

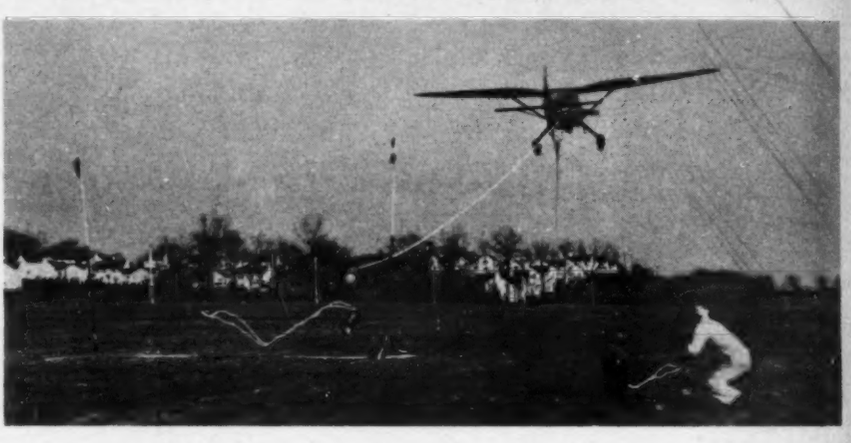
# Faw Down and Go Boom . . . Safely

READYING FOR THE TEST—So you think you can't pick up and drop cargo other than air mail? So you think you can't snatch up everything from eggs to hardware and deliver them in perfect condition without landing? Well, All American Aviation and the United States Rubber Company are going to prove it's a fact. Here's a cargo handler placing air mail and other types of cargo into a newly developed bag made of rubber plies and fabric. Those innocent-looking packages are going to go through a great deal of punishment just to prove that the rubber bag measures up to its advance publicity.

THIS REEL FISHES FOR CARGO—Close-up of the electrically-powered reel (right) in one of AAA's pick-up planes. It is used to pull in a bagful of mail, or other types of cargo, after it has been scooped off the ground.



HE DOOD IT—A rubber bag is picked up and another delivered by a speeding plane. Contents are in perfect condition. This is another step towards bringing air mail and air cargo to places having inadequate airport facilities, or none at all.



## Land Warns Ship Lines of Sea-Air Economics; Hildred Labels Aviation Cartel "Buncombe"

ALTHOUGH he is not opposed to the entrance of the shipping companies into the air transport business, Vice Admiral Emory S. Land, president of the Air Transportation Association of America, warned his "merchant marine friends" of the importance of studying the economic soundness of sea-air transportation before deciding to go into this new field should it meet with the approval of Congress.

Land made this statement in an address at the second annual international civil aviation luncheon of the Aviation Section, New York Board of Trade, at the Hotel Roosevelt. Sharing the speaking honors with the ATA president was Sir William Percival Hildred, director general of the International Air Transport Association.

Referring to the shipping interests, Land said that "they may gain the whole world and lose their souls." At a press conference preceding the luncheon he had indicated that he had not changed his views on the sea-air question since he testified on that subject before the House Committee on Merchant Marine and Fisheries while he still held the post of chairman of the Maritime Commission.

On the question of the Bermuda air pact, Land hit out at those who feared foreign competition. America, he said, should concentrate on giving the best service possible.

"There is a saying that railroads built nations and shipping lines built empires," he pointed out. "I say that airlines can build one world."

Land warned that any Congressional action to integrate air, rail, and sea transportation under a single governmental regulatory agency would end in "complete chaos." He declared that there was no analogy between the requirements of the Army and Navy and of commercial enterprises. Placing all air, rail, and sea transportation under a single secretary for transportation would mean only delay and confusion, Land said.

The uniform State regulation of aviation and the abolition of multiple taxation by Federal, State, and local governments were recommended by the ATA chief. As for the many veterans currently entering into the air transportation business as charter operators and non-scheduled freight carriers, he warned of the wisdom of investigating before investing, to forestall a crash in the treasury.

Sir William P. Hildred, in his short address, lashed out at those who termed the IATA an aviation cartel. He called this "buncombe," and stated that the IATA is not going to cartelize rates. The IATA was doing its best to make international aviation a sound and safe industry, he said, and asked for its support.

The luncheon meeting was under the chairmanship of John F. Budd, chairman of the Aviation Section and publisher of AIR TRANSPORTATION. Other guests of honor were O. W. Young, Civil Aeronautics Administrator, First Region; John E. Slater, chairman of the executive committee of the IATA, and chairman of the board of American Overseas Airlines; Dr. M. P. Catherwood, commissioner, New York State Department of Commerce; Vice Admiral Herbert F. Leary, USN, superintendent of the New York State Maritime Academy; Harry F. Guggenheim, chairman of the New York Airport Authority; Arthur M. Tode, honorary president of the Propeller Club of the United States; Charles R. Haffenden, New York City Commissioner of Marine and Aviation; Edwin M. Otterbourg, general counsel of the New York Board of Trade; A. Silverstein, secretary to Mayor Vincent Murphy of Newark; Wellesley Laud-Brown, treasurer of the Wings Club, and vice president of the Bankers Trust Company; and Herbert J. Lyall, American Airlines.

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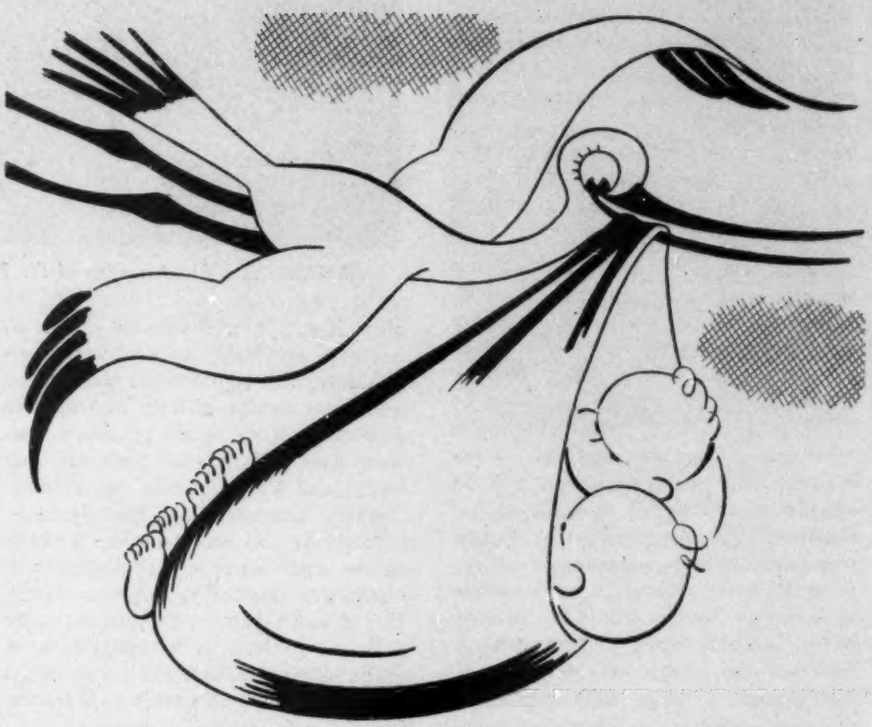

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## Babb: Foreign Fields Are Greenest for Air Cargo

(Continued from Page 26)

"Today our domestic airlines are again in the process of disposing of Douglas DC-3s, Lockheed *Lodestars*, etc., for the larger, faster models which Douglas, Lockheed, Boeing, Martin, Consolidated, Republic and others have developed from the crucible of war. Our Government has enormous numbers of usable transport planes on its surplus list. As history repeats itself, many of these planes will find their way to foreign countries, where as-is, or with minor modifications, they will provide the foundation for the development by air of many sections of the globe which the era of surface transport has bypassed."

"It is my belief," Babb continued, "that many long-cherished plans for highway and rail construction will be completely abandoned in favor of air transport. The construction of surface transport facilities in many countries presents great difficulties and entails such expense that it cannot be justified in the face of low-cost air-transport.

"From the important standpoint of our national defense, it is imperative that the United States maintain its aircraft industry. What better means can be devised than to insure the use of American-made aircraft throughout the world by making our surplus transport and cargo-type aircraft available to foreign operators at low cost? Such a program would develop familiarity with American aircraft, its performance and dependability, and would tend to insure the eventual replacement of such aircraft with new American planes, as has been previously demonstrated. Furthermore, the replacement parts business from foreign airlines who operate American planes would provide a constant flow of orders to American factories, and help maintain our aviation industry on a sound and healthy basis.

RECONVERSION—A section of the Babb storage yard at Glendale, California.

"Current and recent models of both airline and Government surplus airplanes are unsuited to cargo use in the United States because they do not carry sufficient payload to be operated at a profit. This situation will be corrected as new designs make their appearance. On the other hand, almost any airplane can be operated at a profit in many foreign countries. Where conditions of terrain necessitate long and tortuous journeys by pack train, river boat, or dog-sled, air cargo commands a much higher rate than the market would bear in the United States with its highly developed surface transport facilities.

"Eventually the more efficient cargo-planes now on the drafting boards of our aircraft designers, will find their way into foreign service, but for the next five years or more this field can best be developed by utilizing our surplus equipment.

"The foreign field for air cargo is truly enormous, and almost every type of flight equipment, from light observation and pleasure aircraft, to flying boats and giant four-engined transports, will find ready use in the manifold requirements of foreign operation. American aircraft stands high in the esteem of foreign operators. This great market can be an American market for today and for tomorrow, if properly cultivated. In the sale of both airline and Government surplus planes and parts, definite controls should be established to insure honest representations, fair prices, good terms, experienced counsel, assurance of service and of necessary replacement parts. Unless this is done, many sales will backfire, good will will be lost, and with it the prospects for future business."

## NWA, REA Plan Door-to-Door Air Freight Service at Rates 50% Under Air Express

Beginning June 1, a new-type of door-to-door air freight service at rates approximately half under present air express rates will be offered by Northwest Airlines and the Railway Express Agency.

The new service, described as "a sharp departure from present types of service available," is expected to speed up delivery of heavy goods to several thousand cities in the northern tier of states across the nation where Northwest Airlines routes are now operated. It will be the first coordinated air-rail service in the air freight field, it was disclosed.

Croil Hunter, president and general manager of the airline, and L. O. Head, president of the Railway Express Agency, said the service is being offered "to meet unprecedented demands by small and large business for fast door-to-door air freight service at rates keyed to the country's need for a more economic transportation by air."

Rates are based on 30.7 cents per ton-mile, covering shipments of 100 pounds or more. The service is expected to play an important role in facilitating transportation of goods to meet current shortages in all markets.

The plan provides for a complete shipping service at both airport and non-airport points. Consignments will be moved from shipper to consignee by air freight or at any point located off airline by the coordination of truck, rail, and air. Only a single receipt will be required. Packaging will be the same as for air express. Thus, cities adjacent to the NWA coast-to-coast route as well as those directly on the system will be serviced by the new air freight operation.

Air freight will be carried on daily schedule NWA flights, and all planes of the company's fleet will be used. The airline now has in operation 22 DC-3s and several DC-4s with a full fleet of the latter to be in service between New York and Newark in the East, and Seattle-Tacoma and Portland in the West, early next month. Hunter said the air freight service will be expanded still further early next year when the company puts into operation its huge Boeing *Stratocruisers*—peacetime counterpart of the Boeing B-29 *Superfortress.*

"The merging of the freight plane service by one of the nation's oldest airlines and Railway Express Agency's nationwide ground facilities," said Head, "is the logical, practical and economical answer to the need for speedy air-ground transportation for the movement of heavy merchandise by air freight. For the first time, every city and town in the states served by Northwest Airlines will be able to take advantage of the lower cost high-speed air freight service."

The REA chief pointed out that the new service will supplement but not replace the present nationwide air express service existing over all scheduled airlines.

# Why CORPORATIONS Buy Planes

*By* **SYDNEY NESBITT,** *President, Atlantic Aviation Corporation*

***Corporations are learning first-hand the tremendous advantages in owning their own aircraft. Mr. Nesbitt, who is an expert at such things, reveals some of the ins and outs of the corporation plane.***

Sydney Nesbitt

MANY will say that it was due to the acute, or rather desperate, shortage of transportation immediately following the end of the war that so many businessmen purchased airplanes for their private and executive use. It is readily admitted that this certainly had something to do with it, but there is also a sound economic basis behind corporation ownership of executive-type airplanes.

The obvious reason for owning an airplane for business flying is the indisputable factor of time-saving. The sheer convenience of being able to start a trip at any time of the day or night, without having to adjust one's personal arrangements to predetermined rail or airline schedules, is without a doubt a most important argument in favor of personal ownership of aircraft for business purposes.

About 18 years ago, when I first began selling airplanes to corporations for business flying, I was up against a formidable list of objections and reasons why the idea was out of the question. Today, however, these objections have been boiled down to only three.

The first—cost. Many businesses that can afford planes still see a price of around $65,000 to $70,000 as being absolutely beyond their budget.

The second objection is utility for business purposes. The average corporation that can use airplanes to advantage has to be shown the time-saving and convenience that ownership of aircraft affords.

And the third and last objection—personal safety.

Let us go back to the first objection and see how we overcome this.

First, a corporation that has a widely scattered organization, with factories or branches all over the country, necessitating a great deal of company personnel transportation, is absolutely a top prospect. So, for the sake of this article, we will take a company with business ramifications such as these and use it as the guinea pig for our argument.

## The Method

This is how we go to work on them:

We show them that a corporation taxpayer making a net income of over $50,000, and using an airplane in its business, can effect a net cost of 62 per cent of the purchase price of the aircraft. This is due to the present income tax laws which permit a depreciation of the aircraft over a five-year period as a business expense. In other words, the allowable write-off of the actual first cost of the airplane is such that in a period of five years its depreciated value on the books will be one dollar! The treasurer or bookkeeping expert of the company can verify this point, and often contributes greatly towards convincing the rest of the board of directors that this is so.

The actual airplane that we try to sell a corporation of this caliber is a new 1946 postwar model, seven-place, twin-engine, all-metal, low-wing monoplane, completely equipped for all-weather flying. Of course, it has a beautifully appointed soundproof cabin.

Now the first cost of this seven-place executive-type airplane, completely equipped, is between $65,000 and $70,000. The annual cost of operation of this airplane, including a pilot and co-pilot salaries, and expenses—gas, oil, hangar rent, landing fees, insurance, depreciation and normal maintenance allowance—is approximately $54,000. However, this is based on 1,000 hours of flying at an average speed of approximately 200 miles an hour. This gives us a total of 200,000 miles of transportation.

We break down these figures to find out what our actual cost per passenger-mile is, and we learn that the airplane can be operated, with all expenses included, for 30 cents a mile. Discounting the pilot and co-pilot, and classifying them as the crew, we have five passengers and baggage at a cost per passenger-mile of only six cents. This is only slightly more expensive than airline fare, with the added advantage of having a first-class means of transportation on a non-scheduled basis, which the corporation executives or board of directors can readily appreciate.

If one wants to think of the bookkeeping angle, where the actual cost of the airplane on the books in four years' time is two-thirds less than its actual market value, the whole argument builds up into something fairly formidable and hard to turn down. The only catch—and there is always a catch—is in the fact that the airplane must be flown a minimum of 1,000 hours to arrive at these figures. However, if reports that we have received from owners of aircraft of this particular type have any bearing on the subject, each and every one of them is going to exceed this annual total of hours in the

air, all of which contribute towards reducing the cost of operation.

A recent CAA release said:

"How appreciable savings in time and money can be achieved through travel in privately operated aircraft has been demonstrated by the Civil Aeronautics Administration in connection with its contract termination program. On that assignment, more than $4,500 in fares, subsistence and salary time was saved by use of a Government-owned airplane.

"The value of an aircraft to business executives was further demonstrated by the 83 per cent time-saving—actual travel time was less than 103 hours by air against more than 609 that would have been required by rail.

"The trip was made by a CAA Contract Termination Board of four members, one of whom served as pilot. They made 63 stops in 108 days. Best possible time by rail would have been 146 days, assuming trains would be scheduled exactly as needed.

"The cost of operating the plane, including depreciation, was $886.47 less than train fares would have been. The time saving of 152 man days represented $3,626.72 in cash, on the basis of $17.86 average daily salary plus $6.00 per diem subsistence allowance.

"The time savings were especially notable when the destinations were not regular railroad stops, or when natural barriers such as mountains made surface transportation roundabout. For example, the Board made a trip from Prineville, Oregon, to Reno, Neveda, in two-and-a-half hours. By rail, it would have taken about 58 hours."

## Airplane Utility

The second principal objection or opposition to corporation ownership that I mentioned was utility. Assuming that the corporation we are trying to sell is convinced of the economic aspects, we show them how they can cover the same itinerary in so much less time. A corporation, for instance, with a branch in Dayton and another one in Cleveland, and with a head office in New York, can actually send personnel out to visit both branches and be back in New York the same night. From New York to Dayton is approximately two-and-a-half hours' flying time. Leaving New York at 8 a.m. they will be in Dayton at 10:30 a.m. Departing from Dayton at 2 p.m. they will be in Cleveland at 3:15 p.m. The trip back from Cleveland, usually aided by a tail wind, is a matter of two hours and 20 minutes.

An airplane of the type referred to in this discussion has a sound-insulated cabin, permitting easy conversation. Business matters are discussed. Conferences can be conducted while in the air. To save time a light lunch may be enjoyed. Many of the executives who have bought these airplanes take along dictaphones and sometimes an executive's secretary, typewriter and all, completes the business picture.

Then, of course, there is the purely personal aspect of the odd trip down South, or to vacation grounds in Maine. The picture of utility is not hard to build up and there are now enough owners of airplanes of this type to pass the word around—which helps the airplane salesman's position greatly.

The third and last objection—personal safety—is still tough to overcome. Invariably the sale of a corporation plane is not consummated until it is approved by all members of the board. There is always some board member who opposes the entire idea, and it is therefore necessary to sell each individual member on the safety aspects of the proposition as well as the economic angle.

Fortunately there have now been enough planes sold to private corporations, with enough safe passenger-miles to influence the insurance rates. Today an individual or a business group using a corporation-owned plane is completely covered at the same rate as for other forms of transportation.

Sometimes the older members of the board have insurance policies that go back 15 and 20 years, with an insurance company that will not add a rider covering itinerant or non-scheduled flying. These insurance companies are in the minority, however, and are gradually recognizing the indisputable figures which prove that itinerant flying in registered NC'd airplanes is as safe as any other means of transportation. Incidentally, the rates are around three dollars a thousand, which cover non-scheduled flying in both private and commercial planes. Actually the insurance angle is the best one to convince individuals who still worry about the safety aspects of flying.

If the market was limited to only these large corporations, the picture would be a sorry one indeed, but such is not the case. Today twin-motored, all-weather airplanes in the $65,000-$70,000 class are being bought and intelligently used by a complete cross-section of American business organizations. These aircraft have been bought by organizations, in the glass business, the milk business, the fish business, building supply houses, contractors, undertakers—to mention but a few.

Of course, the oil companies are obvious prospects. We are frankly surprised at the inquiries we get from businesses that we never dreamed would use planes. For instance, a New York wholesale dress house, with business in the principal cities of the United States, is now developing an aviation department which will operate a fleet of multi-motored planes for the purpose of delivering dresses to customers.

A smart accountant has come up with figures to prove that the company can operate planes for delivering dresses and make more profit than heretofore because of one simple factor. Dresses

BEECHCRAFT D18S—Dramatic shot of the D18S transport, manufactured by the Beech Aircraft Corporation, readying for take-off. This twin-engine executive transport has a cruising speed in excess of 200 miles an hour

## The Author

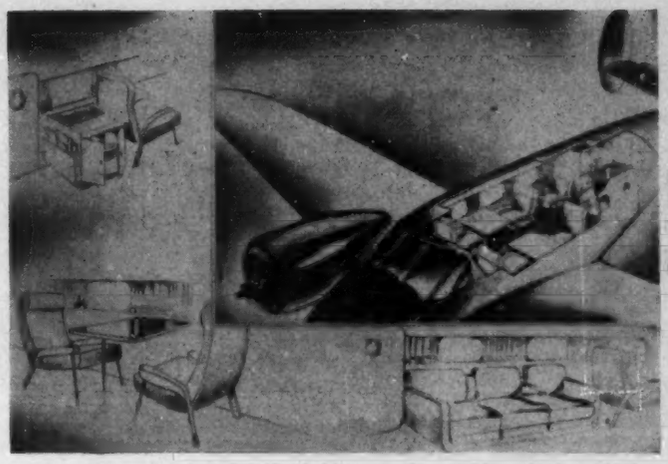
SYDNEY NESBITT has been flying for 20 years, and has been connected with the aircraft and aircraft radio sales field since 1928. The author of numerous articles on aircraft radio and private and non-scheduled flying, his name is well known in aviation circles. Nesbitt took active part in the formation of the Aviation Distributors and Manufacturers Association, serving on its Board of Directors. He has also served in the Civil Aviation Joint Legislative Council. At the present time he is president and general manager of Atlantic Aviation Corporation, New York.

must be packed in cartons for surface-borne shipment. When they arrive at the destination they have to be unpacked and pressed again before they can be placed on sale. This item alone is 15 per cent of the cost of the dress—sufficient margin to justify the use of planes which would eliminate the necessity of pressing and boxing the garments. These would be hung on racks in the planes and flown to the destination.

The overall picture for an increase in corporation ownership of airplanes looks extremely bright.

I have dealt only with the ownership of aircraft for executive transportation, but there is another important trend—the salesmen, buyers, engineers, and others who will fly these aircraft themselves, and accomplish a lot more with their time than it was heretofore possible. However, this aspect of business flying will not come into full fruition until we have more airports and landing strips.

These smaller planes do not cruise as fast, for one thing. Therefore, advantage in time saved narrows down when one includes the time spent in getting in from the airport to the town or city. However, the oil companies and the aviation industry itself, with business to be conducted right at the airport visited, are showing the way. As and when more airports are constructed or air harbors for amphibious use become available, there will be released a wave of individual personal ownership of aircraft for use in everyday business in exactly the same way that developed the automobile business. Every survey made has shown that the majority of automobiles are purchased for combination business and pleasure purposes.



EXECUTIVE TRANSPORT—Artist's sketch of a typical plane fitted out especially for traveling executives.

The peculiar thing about corporation ownership of airplanes is that it also creates a demand for airline travel and produces business for the airlines. Psychologically it works this way: The employees of an airplane-owning corporation have developed a confidence in flying and have overcome natural prejudices because "if the boss flies and he thinks it is safe to fly, why don't I?" So at vacation time they try it and like it. These employees become sold, of course, and they influence their entire families, and this goes on down the line to grandma and grandpa, their relatives, and friends.

## International Air Show

The National Aeronautical Association of Canada is sponsoring the first postwar big-scale International Air Show, to be held at DeHavilland Airport, Toronto, from August 30 to September 7. Latest designs in American, Canadian, and British aircraft will be on display.

## World Congress for Air Age Education in August

The result of a meeting in New York, representatives of 17 American and European universities have laid plans for a World Congress on Air Age Education Research to be held in this city next August.

Dr. N. L. Engelhardt, Jr., director of Air Age Education Research, stated that the purpose of the World Congress is "to bring together leaders in the field of education throughout the world to consider, first the methods by which education and training will keep pace with the rapid changes in the technical and social phases of air transportation; secondly, the proper content for curricula at all levels of learning; and, thirdly, the procedure by which relationships among people, especially children and youth, may be developed universally to produce understanding and appreciation of each other in this Air Age."

The World Congress will be held under the auspices of Bucknell University, Cornell University, University of Denver, Indiana University, Iowa Wesleyan College, Massachusetts Department of Education, University of Minnesota, Nebraska Department of Public Instruction, New York University, Ohio State University, Oklahoma Agriculture and Mechanics College, University of Omaha, University of Pittsburgh, Stephens College, Syracuse University, and University of Texas.

## Airport Executives Meet

The American Association of Airport Executives is to hold its annual convention at the Congress Hotel, Chicago, Illinois, on May 20, 21, 22.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## AIR TRANSPORTATION Books

INTERNATIONAL trade and travel by air bring enormously important new public problems to the fore. Authoritative literature on these problems is all too meager and does not keep pace with the continuing expansion of the already vast and still pioneering air transport industry. For this reason authorities are hailing the publication early in June of *Vital Problems of Air Commerce* under the editorship of Lucien Zacharoff.

With a preface by John F. Budd, publisher of AIR TRANSPORTATION, and chairman of the Aviation Section, New York Board of Trade, the volume bears the imprint of Essential Books of Duell, Sloan & Pearce. Its more than 30 chapters have been contributed by as many of the nation's leading experts from the Government and industry. *Vital Problems of Air Commerce* is an outgrowth of the Aviation Section's well-known luncheon forums, panels, and discussions of the past two years. It forcefully indicates that, as Budd writes in his preface, "high-economy, high-efficiency air transportation" can have its manifold problems resolved "through research, experience, discussion and pooling of ideas."

In his editorial introduction, which is also a resume of the Aviation Section's history, Zacharoff declares:

"Air transportation is patently a social-economic-political force of global proportions. Its terrific impact on our lives in war and peace is no longer a matter of conjecture. Because it is daily looming ever larger in the routine of all men, women, and children, irrespective of whether they ever leave the ground or not, the experts heard at the Aviation Section gatherings deserve a national hearing. The aviation problems of the great metropolis of New York are, in whole or in part, the problems of every civilized community in the world."

Stressing the emergence of international air transportation as a prime factor in world affairs, the editor and the contributors to *Vital Problems of Air Commerce* bring out in detail its impact on foreign trade and economics, on politics and culture. The present and future relationship to agriculture and industry is underscored, as well as numerous other aspects of the Air Age.

The material is organized in six sections, each consisting of several chapters. The section headings are: (1) What Air Policy, Global and Domestic, for the U.S.A.?; (2) Aviation Begins and Ends on Terra Firma; (3) The Overseas Air Commerce Lures Merchant Marine; (4) Air Cargoes, Fuels and Lubricants, Legal Problems; (5) Agriculture, as Well as Industry, Takes to the Air; (6) Air Commerce is a Matter of Coordination and Cooperation.

Chapter subjects include: International Air Trade and Travel Routes of the Future; International Air Transportation; A Brief for Regulated Competition; The Basic Issues of National Transportation Policy; Strengthening America's Overseas Air Services; Air Transportation and Free Enterprise; Pending Federal Airport Legislation; The Utility of the Personal Airplane with Relation to Properly Located Airports; Commercial Flying in New York; Federal Airport Legislation and Its Effect on Metropolitan Areas for Both Personal and Commercial Aviation; The Future of Aviation in Personal Flying and Small Airports; Proposed Airport Development in CAA Region I; Plans for Private Flying in the New York Metropolitan Area; The States' Obligation with Respect to Municipalities and Private Airport Development; Traffic Prospects in Overseas Air Transportation; Sea-Air Integration as a Potential; Airships for Overseas Commerce; The Ports' Stake in Overseas Air Commerce; The Shipper Looks at Air Cargo; Legal Problems of Air Transportation; Air-Age Aviation Fuels and Lubricants; Aviation's Place in Agricultural Economy; The Personal Airplane as an Agricultural Carrier; Packaging and Delivery for Air Cargo; The Effects of Air Transportation on Merchandising; Railway Services Are Helpful to Air Cargo Transport; Warehousing as a Unit in Distribution by Airplane; Bank Financing of Air Shipments; Linking Motor and Air Carrier Service in the Air Age; The Importance of the Foreign-Freight Forwarder and the Customs Broker in International Air Transport; Coordination of Services of the Air Carrier with Those of Other Groups for Best Development of Air Commerce.

Government and business authorities who are among the contributors to *Vital Problems of Air Commerce* are: L. Welch Pogue, chairman, Civil Aeronautics Board; the late Jack Nichols, vice-president, Transcontinental & Western Air; Donald D. Conn, executive vice-president, Transportation Association of America; Stuart G. Tipton, acting president, Air Transport Association of America; Colonel J. Carroll Cone, assistant vice-president, Pan American Airways System; Almon E. Roth, president, National Federation of American Shipping; Gerald E. Donovan, vice-president, Moore-McCormack Lines; C. R. Speers, regional vice-president, American Airlines System; James C. Buckely, principal economist, The Port of New York Authority; Rear Admiral C. E. Rosendahl, USN; George B. Boochever, chairman, Legal Affairs Committee, Aviation Section, New York Board of Trade; T. W. Nelson, research and development laboratories, Socony-Vacuum Oil Company; Colonel L. H. Brittin, director, Edward S. Evans Transportation Research; John M. Hunter, chief, Airport Contracts and Legislation Unit, Airports Service, Civil Aeronautics Administration; W. T. Piper, president, Piper Aircraft Corporation; John McKenzie, former commissioner, New York City Department of Marine and Aviation.

Also; Joseph T. Geuting, acting manager, Personal Aircraft Council, Aeronautical Chamber of Commerce; Albert H. Wessel, supervisor of airports, Region I, Civil Aeronautics Administration; C. Earle Morrow, acting executive director, New York Regional Plan Association; Dr. M. P. Catherwood, commissioner, New York State Department of Commerce; Major Benjamin H. Namm, president, Namm Department Store, Brooklyn, and director, Aviation Corporation; Kinsey M. Merritt, general manager, public relations, Railway Express Agency; George W. Gerlach, president, The Manhattan Storage and Warehouse Company; A. M. Strong, chairman, Committee on Uniformity in Documents and Practices, Bankers Association for Foreign Trade, and vice president, Public National Bank and Trust Company of New York; John V. Lawrence, managing director, American Trucking Association; Chester Mack Mayer, chairman, Air Shipping Services Committee, Aviation Section, New York Board of Trade, and President, Air Express International Agency; L. F. Bouman, U. S. Representative, Royal Dutch Airlines, and secretary, Board of Directors, Royal Dutch Netherlands Indies Airways; Alfred B. Bennett, director of sales, Aeronca Aircraft Corporation; Gilbert F. McKeon, vice president, The Manhattan Storage and Warehouse Company.

Affiliations of the forementioned names were current at the time of the book's writing.

**(Vital Problems of Air Commerce—Edited by Lucien Zacharoff; published by Duell, Sloan & Pearce, 270 Madison Ave., New York City; 352 pages; $3.)**

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## AA Cuts Air Freight Rates; 4-Class Rate System is Out

American Airlines' new air freight structure, with substantial savings to those who ship by air, went into effect April 26. Under the new rates, the four-class varying rate system was eliminated. Now rates are on a one-class basis with an average of 26.5 cents per ton-mile, not including pick-up and delivery. Savings up to 20 percent are in effect for volume shipments on this scale:

| Weight | Average Rate | Saving |
|---|---|---|
| 100 to 499 lbs..... | 26.5¢ | base rate |
| 500 to 999 lbs..... | 25.6¢ | 3.3% |
| 1,000 to 1,999 lbs... | 24.7¢ | 6.7% |
| 2,000 to 2,999 lbs... | 23.0¢ | 13.3% |
| 3,000 lbs. and over. | 21.2¢ | 20.0% |

Under the old rate structure, air freight rates were divided into four classes:

| Class | Top rate (per ton mile) |
|---|---|
| A ..... | 53¢ |
| B ..... | 45¢ |
| C ..... | 38¢ |
| D ..... | 31¢ |

Class A included shipments of especially valuable commodities such as gold, furs, and diamonds.

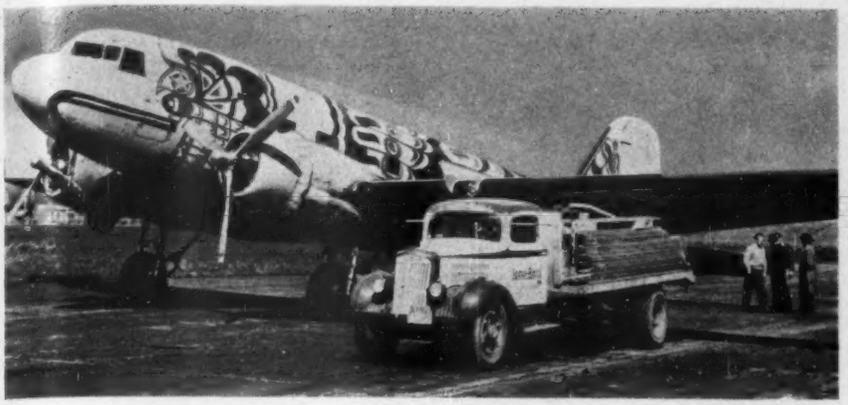
In Class B were such items as cameras, motion picture projectors, electrotype matrices, musical instruments, and scientific equipment.

Class C air freight included drugs and medicines, dry goods, and clothing, sea food, and hand tools.

Most freight was carried in Class D and included such commodities as fruits, vegetables, berries, automobile and aircraft parts, books, maps, newspapers, magazines, and machine parts.

Savings between the old and new rates will vary considerably, depending upon the distance flown and weight of the shipment. A shipper sending 100 pounds of cargo in Class A under the old rate from New York to Los Angeles would pay $66.60, including pick-up and delivery, while under the new rates this shipment—if it were included in a 3,000 pound lot—would pay only $27.60 a 58½ percent reduction.

Under the old rate, a 100-pound shipment in Class A would cost $71.20 to ship from Boston to Los Angeles. By increasing the shipment to 3,000 pounds to take advantage of volume reductions, this same shipment would cost $27.96, a saving of 61 percent.



FOR THE PANHANDLE STATE—A new White Super Power truck carrying 3,500 board feet of lumber meets a National Skyway Freight Corporation cargoplane at the Portland-Columbia Airport in Washington. The lumber, weighing some 5,000 pounds, was flown to Galveston, Texas.

## First Lumber Shipment By Air is Made by NSFC

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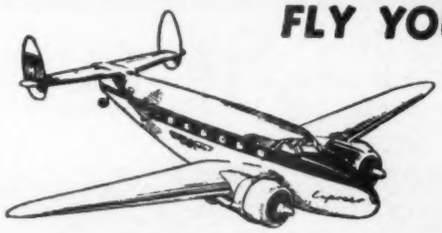
It happened last month when a full load of lumber, weighing approximately 5,000 pounds, was flown by the National Skyway Freight Corporation from Portland, Oregon, to Galveston, Texas, marking the first time that a quantity shipment of this kind was ever made by air.

On the shipping end was the Long-Bell Lumber Company, Longview, Washington; the receiver was the Maurice Angly Lumber Company, Galveston. The lumber shipment was inspired when a retail lumber association, holding a convention in the Texas city, needed 3,500 board feet of top-grade Douglas fir paneling for auctioning purposes. Proceeds of this auction were to be donated for a memorial to Texas lumbermen who had lost their lives in the war.

Since immediate delivery was essential, air transportation was chosen for the principal leg of the journey. The lumber was delivered to the Portland-Columbia Airport in a White Super Power truck, transfer accomplished on a natural level, and the plane took off. Not many hours later the *Conestoga* cargoplane settled onto a Texas landing strip where another truck met it to take the lumber to its final destination.

Coordination plus!

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LOCKHEED

### The Wreckers

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Not long ago their entire career consisted of deliberately ruining the meticulously engineered assemblies that went into the *Constellation*, just to see if the parts came up to Lockheed's exacting standards.

For instance: they took up number 61 (the first *Constellation*), blew a hole in one of the two tires on the nose landing gear, and then brought the plane in at 80 mph. The *Constellation* landed nicely.

Another time these testers purposely threw dirt and water into the oil lines of the hydraulic booster system, forcing it to work under what they understate as "adverse conditions." Adverse, that is.

They even kicked around a whole tail control assembly in a chamber that was 70 degrees below zero (Fahrenheit) until all the low-temperature bugs had been licked.

As a result of this kind of highly creative destruction, which goes on at Lockheed year in and year out, the *Constellation* is the most advanced and safest transport in service today.

**L to L for L**

©1946, Lockheed Aircraft Corp., Burbank, Calif.

# The Aussies Put Wings on Meat

*By* **CHARLES LYNCH**

TO provide quicker and more efficient transport of meat to markets in Australian capital cities, civil aviation interests in Australia are planning bulk freight transport from the interior of the continent. This development is expected to add considerably to the importance of the industry.

The problems of meat producers in the remoter areas of Australia arise from the concentration of railway lines on the eastern coastline, on one hand, and the southwest coast, on the other. By the time cattle are four years old they may have been moved from pasture to pasture over immense distances, and season and climate have often an adverse effect upon their condition and in consequence upon the market value of meat. In some places it is necessary to travel cattle 1,700 miles to markets.

Stock from the Barkley Tableland, an important cattle producing area in Northwest Australia, has to travel to Mount Isa and on to the coast. From the large area beyond the central railway line in South Australia it is necessary to transport stock 1,000 miles to Adelaide. In order to eliminate these time and distance factors, it is planned to set up a series of inland killing centers, each equipped with an aerodrome.

These killing centers will enable the cattle to be slaughtered while still in prime condition. The pastoralist will be assured of both higher prices for quality and quicker turnover, and the Australian consumer will also benefit by getting more regular supplies.

It is hoped that Australian exports of frozen beef which totaled 22,600,000 pounds in 1943 will be stepped up considerably under the scheme. The project has received enthusiastic support from the owners of inland cattle stations. Recently the private airline most concerned with the project approached more than 1,000 station owners, and practically all supported the basic principle of the scheme. More than 950 of them were in favor of air transport facilities for the industry and 850 urged the establishment of inland killing centers.

Locations which are considered suitable for centers are in the hinterland areas lying up to 300 miles inland from Carnarvon, Port Hedland, Broome, Derby and Wyndham (all in Western Australia), Darwin and Birdum (Northern Territory), Cloncurry (Queensland), Alice Springs (Central Australia) and other railheads.

A chain of centers equipped with cool stores would enable meat to be flown to railhead and shipment points, according to their location, and would lead to rapid development of the inland meat industry. It is estimated that loads of up to 22,000 pounds of meat could be despatched in types of planes similar to the DC-4 converted as freighters. British Avro *Tudors* and Bristol *Freighters* and Fairchild *Packets* would also be suitable, and would require very little conversion.

Before the Second World War the transport of meat by plane was carried out in the Australian mandated territory of New Guinea. From 1932 until the outbreak of war, cattle and draught horses were also carried from Lae on the coast to Wau to meet requirements of the miners. Supplies of fresh meat were carried from Wau to the isolated mountain mining centers, including Black Cat and Roamer.

Once when the miners decided to hold race meetings 21 horses were flown inland after having been shipped to the coast from Australia. The animals transported well and were not affected by flying conditions.

Increased interest was given to plans for the aerial transport of meat over long distances recently when a 2,900-mile experimental flight was conducted by the Royal Australian Air Force. A cargo of 4,000 pounds of beef was carried from Archerfield (Brisbane) to Morotai. The *Dakota* plane which carried out the flight took 35 hours on the journey.

Experts who inspected the meat agreed that it was in as good condition as frozen meat transported by sea. There were 36 cases then placed in wooden boxes which were packed with dry ice, and loaded into 12 metal bins. Although the plane spent 14 hours at Darwin en route, the beef was still frozen hard on its arrival at Morotai. Lumps of dry ice which had outlasted the journey and the tropical heat were found inside each container.

RAAF officers were pleased at the success of the flight. It is now possible to despatch up to 70,000 pounds of fresh beef a week to troops in island garrison areas north of Australia, about 15 *Dakotas* being needed to carry this quantity.

Another development in freighting of food by air is the carriage of fresh fish from Tasmania to mainland markets.

**FROM THE AIR—Canberra, capital of Australia, as seen from an airplane. Australia, already a significant factor in world air transportation, is not losing track of air freight.**

# AIR-PORTATION NEWS

[REG. U. S. PAT. OFF.]

## Sumner Sewall in Line To be AMG Civil Chief

It was reported from Washington that Sumner Sewall, twice Governor of the State of Maine and on leave of absence as president of American Overseas Airlines, Inc., has been selected for probable appointment as the first civilian director of the military government in one of the three German states in the American zone.

Sumner Sewall

The War Department revealed that at the request of Secretary of War Robert P. Patterson, Sewall was granted the leave of absence from his executive airline duties. He will go on duty as an assistant to Lieutenant General Lucius D. Clay, deputy military govenor of Germany, in charge of public health and welfare activities. The state directorship is expected to follow soon afterward.

A veteran of the First World War, Sewall served with the 95th Pursuit Squadron. He earned the rating of ace, and was twice awarded the American Distinguished Service Cross as well as the French Legion of Honor and Croix de Guerre, and the Belgian Order of the Crown.

Sewall served as a director of United Air Lines for 11 years. Eighteen years ago he was connected with Colonial Airlines as traffic manager. Subsequently he became general passenger traffic manager of the system which later became American Airlines. Last Summer he succeeded W. H. Coverdale as president and director of American Export Airlines which merged with American Airlines.

## Airborne Food Discussed At Chicago Conference

Transportation of grocery products by air was one of the principal subjects discussed at the second 1946 quarterly conference of Operation, Inc., in Chicago last month. Joseph Boylan, director of cargo operations for American Airlines, led a discussion on airborne foods, and revealed the airlines' plans to build terminal warehouses with adequate refrigeration. During the discussion period it was predicted that air freight rates will come down, making the air transportation of foods, particularly perishables, competitive with other forms of transportation.

## Senate Gives Okay To National Airport Aid

Congressional action on the State-aid program for the nationwide airport development program has been approved by the Senate, 49-32—a compromise measure. The bill carries appropriations of $523,000,000.

Of the total sum to be appropriated, $500,000,000 will be available until 1953 in amounts not exceeding $100,000,000 in a single year, for airport construction purposes. The money would be allocated among the states by the CAA administrator, half on the basis of population and half on the basis of area.

## 65 Moscow Flights Daily

Beginning this Summer, 65 commercial flights will leave Moscow Airport each day. International flights will be made to Warsaw, Belgrade, Sofia, Bucharest, Prague, Vienna, Berlin, Teheran, and Ulan Bator in Outer Mongolia. There will also be non-scheduled runs to London, Paris, and Rome.


KLM

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[TRADE MARK]

# LANDING FEES

## Scheduled and Non-Scheduled

### BALTIMORE MUNICIPAL AIRPORT

**Baltimore, Maryland**

Fees for scheduled transport operations are $75 per month for each of the first six daily schedules, $50 per month for each of the next four, and $25 per month for all over 10. This is based on standard gross weight of 26,000 pounds, and provision is made for an increase of $1 for each additional 1,000 pounds.

For non-scheduled operations there have been adopted a fee of 20 cents per passenger seat and 10 cents per 1,000 pounds maximum gross weight for passenger and cargo operations respectively. There are no fees for non-commercial operations.

### BELLINGHAM AIRPORT

**Bellingham, Washington**

Scheduled air carriers pay $45 per month per scheduled landing. Non-scheduled and private aircraft do not pay landing fees. There is a tie-down charge of 50 cents per night.

*NOTE: AIR TRANSPORTATION will publish landing fees as they are received. For complete details on rates mentioned in the special landing fees table but not published this month, consult back issues or write to the editor.*

### 10 Planes Fly Biggest Air Shipment of Farm Machinery

Ten huge cargoplanes representing four airlines took off from Willow Run Airport with a combined load of 200 Rototiller farm machines destined for work on small and large farms in all parts of the United States. The fleet carried the largest combined air cargo load of farm equipment ever shipped simultaneously from factory to user.

The planes flew Rototillers from the assembly lines of Graham-Paige Motors Corporation in the Willow Run plant to ten widely separated farm equipment distributing points. Shipments were destined for distributors and dealers in the New York area, San Francisco, Los Angeles, Oklahoma City, San Antonio, Baltimore, Atlanta, Kansas City and Indianapolis. The four airlines participating in the mass air shipment were Slick Airlines, Eastern Air Lines, U. S. Airspeed Company and TWA.

### Package Air Cruises

In a recent interview at the McAllister Hotel, Miami, John E. Tynan, New York travel agent, expressed the belief that package air cruises and charter planes will bring new guests to resort hotels now that transportation facilities are improving.

## LANDING FEES

| | | Scheduled | | | | Non-Scheduled | |
|---|---|---|---|---|---|---|---|
| City | Airport | 1st Trip per Month | 2nd Trip per Month | 3rd Trip per Month | Gross Weight (lbs.) | Per Landing | Gross Weight (lbs.) |
| Albany | Albany | $50.00 | $25.00 | $25.00 | 50,000 | Not available | ..... |
| Baltimore | Baltimore[4] | 75.00 | 75.00 | 75.00 | 26,000 | See footnote[4] | ..... |
| Bellingham | Bellingham | 45.00 | 45.00 | 45.00 | ..... | None | ..... |
| Birmingham | Birmingham | 100.00 | 50.00 | 25.00 | ..... | Not available | ..... |
| Boston | Logan | 100.00 | 100.00 | 100.00 | ..... | Not available | ..... |
| Buffalo | Buffalo | 50.00 | 50.00 | 50.00 | 25,000 | $1.67 | 25,000 |
| Chicago | Chicago | 200.00 | 200.00 | 200.00 | 25,000 | Not available | ..... |
| Cincinnati | Lunken | 6.25 | 6.25 | 6.25 | ..... | Not available | ..... |
| Cleveland | Cleveland | 150.00 | 150.00 | 150.00 | ..... | 7.50[1] | ..... |
| Dallas | Love | See footnote[2] | ..... | ..... | ..... | See footnote[2] | ..... |
| Detroit | Detroit | 100.00 | 100.00 | 100.00 | ..... | No charges | ..... |
| Long Beach | Long Beach[4] | 3.00 | 3.00 | 3.00 | 32,000 | 3.00 | 32,000 |
| Los Angeles | Los Angeles | See footnote[3] | ..... | ..... | 25,500 | See footnote[3] | 25,500 |
| New York | LaGuardia[4] | 200.00 | 200.00 | 200.00 | 25,000 | 20.00 | 25,000 |
| New York | Idlewild | See footnote[4] | ..... | ..... | ..... | 20.00 | 25,000 |
| Newark | Newark | See footnote[4] | ..... | ..... | ..... | See footnote[4] | ..... |
| St. Louis | Lambert-St. Louis | 100.00 | 100.00 | 100.00 | ..... | No charges | ..... |
| Wash., D.C. | National | ..... | ..... | ..... | ..... | 2.50 | ..... |

[1] If cargo is loaded, the fee is $10.
[2] 8c per 1,000 lbs.
[3] $10 per departure per cargo plane. Consult article for additional information.
[4] Consult article for detailed information.

# New Routes

### All American

Extension of All American's Air Pick-Up route between Pittsburgh and Huntington, West Virginia, via the Ohio River Valley, to include Cincinnati as the southern terminal, and Georgetown, Ohio, and Maysville, Kentucky, as intermediate points, has been authorized by the Civil Aeronautics Board.

Service at all three points was started April 29. Their addition brings to 121 the number of cities and towns served by All American's Air Pick-Up system in Pennsylvania, New York, Delaware, West Virginia, Ohio and Kentucky.

### Inland

Inland Air Lines Route No. 35 was amended by the CAB to extend beyond Rapid City, South Dakota to Sheridan, Wyoming. Inland's Routes Nos. 28 and 35 are extended from Cheyenne, Wyoming, Denver, Colorado; Cheyenne thus becomes an intermediate point instead of a terminal point.

### National

The CAB has extended National Airlines Route No. 39 from Pensacola to Miami, via Tampa, thus establishing a route across the Gulf of Mexico from Pensacola and New Orleans which will provide shorter and more direct service between the areas involved. Panama City, Florida, and Valdosta, Georgia, were added as intermediate points on Route 39 between New Orleans and Jacksonville.

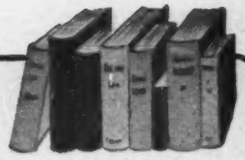
### Western

In amending the existing certificate of Western Air Lines the CAB named Richfield, Cedar City and St. George, Utah, as intermediate points between Salt Lake City, Utah, and Las Vegas, Nevada; and Yuma, Arizona, as an intermediate point between Palm Springs and El Centro, California, on Western's Route No. 13. The Board also designated Logan, Utah, and Jackson, Wyoming, as intermediate points on Western's Route No. 19.

### Boeing 417 Goes Into Production

The Boeing Airplane Company has announced its decision to enter into large-scale production of smaller transport, and the Model 417 has been ordered into quantity production at the company's Wichita division.

The new plane, which was first described in AIR TRANSPORTATION last October, is a two-engine high-wing transport seating 20 to 24 passengers, and powered by 800-horsepower Wright Cyclone engines. It was designed by Boeing-Wichita engineers working in close collaboration with engineers at Boeing's parent plant in Seattle. Through it, William M. Allen, president, said, Boeing will make available to local service and feeder airlines the advantages of the advanced engineering it has brought to the large airplane field. Decision to produce the 417 was reached after an extensive survey into the smaller transport field.



# LEGAL NOTES on Air Transportation

By GEORGE BOOCHEVER

*Chairman of the Legal Committee and General Counsel to the Aviation Section, New York Board of Trade*

## *The Canadian Aeronautics Act and Regulations as to Non-Scheduled Operations*

IN view of the great growth of non-scheduled air cargo and passenger transportation in this country and the pending but undetermined investigation of the advisability of imposing economic regulations by the Civil Aeronautics Board under Docket No. 1501, it may be of interest to take a quick look at the relevant Canadian regulations and provisions.

The control of aeronautics in Canada is governed by The Aeronautics Act, Chapter 3, R.S.C. 1927, as amended by 8 George VI, Chapter 28, 1944, 9-10 George VI. Chapter 9, 1945, and the regulations which have been issued thereunder.

The Aeronautics Act, Part I, provides for a Minister of Transport, who is designated by the Governor in Council, and prescribes his duties, which, generally speaking, call for supervision of all matters connected with aeronautics, subject to the approval of the Governor in Council; gives him power to regulate and control aerial navigation over Canada and the territorial waters of Canada, and in particular, but without restricting the generality of the foregoing terms of the Section (Section 4) he may, with the approval aforesaid, make regulations with reference to licensing pilots and other persons engaged in the navigation of aircraft and generally, the registration and operation of commercial service in the air.

Part II of the Act defines "commercial air service" as meaning "any use of aircraft in or about Canada for hire or reward."

Section 7 (1) provides that there shall be a board, to be known as the Air Transport Board, consisting of three members appointed by the Governor in Council. The term of office is during good behavior for a period of 10 years, subject to removal at any time for cause by the Governor in Council.

There is a provision for independence of members of the board, by requiring that no member shall either directly or indirectly engage in manufacturing or selling aircraft or in the transport of goods or passengers by aircraft for hire or reward, and no member of the board shall be a shareholder, member, director or partner of any company, association or firm engaged in manufacturing or selling aircraft or in the transport of goods or passengers by aircraft for hire or reward.

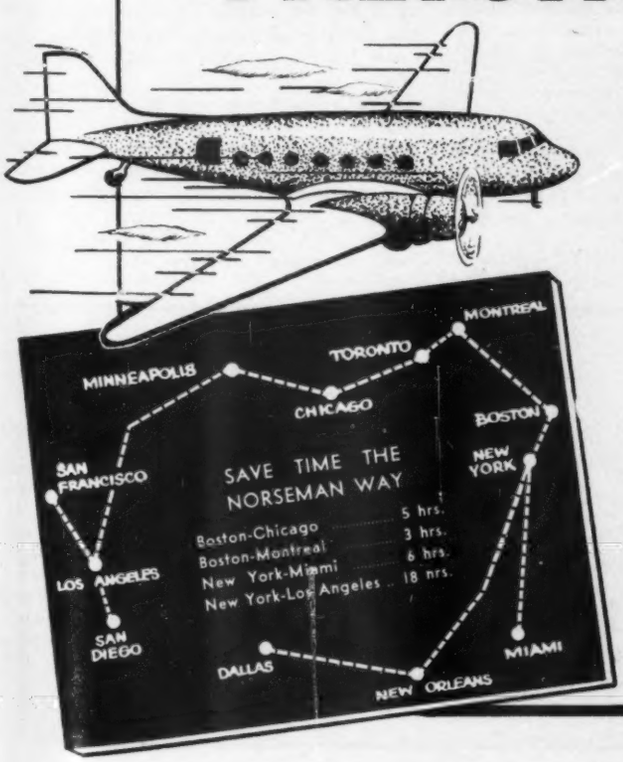
The board is given full jurisdiction to hear and determine complaints and requests for any order governed by the Act or regulations thereunder. Mandatory powers are given to order or forbid the doing of anything required by the Act and the board is given full jurisdiction to hear and determine all matters whether of law or of fact. As regards attendance of witnesses, it has all the powers, rights and privileges that are vested in the Superior Court of record, for Canada.

Subject to the approval of the Governor in Council, the board may make regulations requiring the filing of reports and other data and establishing classifications or groups of air carriers. The regulations may exclude any air carrier or class or group of air carriers from the operation of the whole or any part of this Part of the Act or any regulation, order or direction made or issued pursuant thereto. There is a further provision that notwithstanding any previous contract or commitment or any other general or special act or provision, no air carrier shall issue free or reduced rate transportation except with the approval in writing of the board and under such conditions, terms and forms as the board may direct.

Subject to the approval of the Minister, the board may issue to any person applying therefor a license to operate a commercial air service. No such license shall, however, be issued in respect of a commercial air service, owned, leased, controlled or operated by any person who is engaged in the transportation of goods or passengers for hire or reward by means other than aircraft unless the Governor in Council is of the opinion that it is in the public interest that such license be issued.

The act specifies that the board shall not issue any such license unless it is satisfied


FREIGHT FLIGHT...

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that the proposed commercial air service is and will be required by the present and future public convenience and necessity. There is provision in the act for exemption from the foregoing as to license of any class or group thereof, except a scheduled, commercial air service or the operator thereof, either generally or for a limited period or in respect of a limited area, if in the opinion of the board such exemption is in the public interest.

Notwithstanding the issuance of any such license, no air carrier shall operate any commercial air service unless and until an operating certificate has been issued by the Minister to such air carrier, certifying that the holder is adequately equipped and able to conduct a safe operation as an air carrier over the prescribed route or in the prescribed area.

In issuing any license, the board shall prescribe the routes which may be followed or the areas to be served and may attach to the license such conditions respecting schedules, places of call, carriage of passengers and freight, insurance, and subject to the Post Office Act, the carriage of mail, and such other conditions as the board may consider necessary or desirable for the efficient operations of the commercial air service. An appeal may be made to the Minister from any action of the board with relation to the license. Operation without a valid license is made an offense and on conviction subject to the imposition of a fine not to exceed $5,000, or imprisonment for a term not to exceed six months, or to both such fine and such imprisonment.

An appeal shall lie from the board to the Supreme Court of Canada upon a question of jurisdiction or a question of law, or both, upon leave therefor being obtained from a judge of the said Court upon application made within one month after the making of the order, decision, rule or regulation sought to be appealed from or within such further time as the judge under special circumstances shall allow.

Regulations respecting commercial air services have been issued, dealing with applications for licenses. Detailed instructions have also been issued as to the preparation of evidence that a commercial air service is required by public convenience and necessity, in accordance with a directive dealing with applications for licenses.

Instructions have likewise been issued as to applications by a foreign scheduled air carrier for an operating certificate.

The Air Transport Board has also issued a memorandum to the effect that it has in the course of preparation a directive for the guidance of applicants for Canadian Air Transport Board licenses to operate non-scheduled charter commercial air services into Canada from bases in the United States. The memorandum calls attention to the fact that the above mentioned directive covers the matter of applications for licenses in regard to domestic operations and that some of these requirements are not entirely applicable to foreign carriers. It is also pointed out that in addition to the requirements indicated in the directive the board would have to be satisfied, in the case of applications by individuals, that such individuals are citizens of the United States and in the case of applications by corporations, that the corporation is substantially owned and controlled by citizens of the United States. This means, in the case of corporations, that evidence would have to be submitted that not less than 75 percent of the stockholders and not less than 75 percent of the officers or directors are United States citizens.

Circular No. 1, issued by the Air Transport Board on April 2, 1946, provides for the establishment of tolls by air carriers performing charter air service from a designated base or bases. The circular reads as follows:

"All air carriers performing charter service from a designated base or bases are hereby informed that the board has directed that tolls for such service must not be established, charge or advertised 'per passenger' or 'per pound' and that such tolls may be established and charged only on the basis of an amount per hour or per mile for the complete capacity of the aircraft.

"Air carriers who wish to operate a non-scheduled service on the basis of 'per passenger' or 'per pound' tools may do so only under the authority of a license to operate a non-scheduled service from a designated base between specific points. Such a license should be applied for in accordance with the board's Directive No. 1."

## MEETING IN A SKYMASTER

If you're a bug on "firsts" here's another one for your scrapbook. The Hotel Sales Managers Association of New York held its April meeting—not in a hotel—but in an American Airlines DC-4 winging over New York City. Just to keep the records straight, this was the first complete business luncheon on record. Above are Ruth Davey and Ray Bolger who took over the job of master of ceremonies for the trip. Bolger did some interviewing on his own. Subject: the problem of securing hotel rooms.


# Time FOR SALE . . .

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# Strides in Air Cargo Packaging

THEIR activities no longer weighed down by wartime tasks, the 23 United States flag airlines comprising the Air Transport Association of America are centering their attention more and more on problems affecting the civilian air transport industry—not least of which involves packaging of airborne commodities.

Considerable headway has been achieved in this field during the last decade, thanks to the cooperation of the entire packaging industry which has given much time in the research and manufacture of especially designed boxes and containers adaptable to "flying boxcars."

To mention a few, baby chicks have been lifted from cumbersome box-like containers and placed in light, durable cartons; drugs are transported in streamlined packages with protective features; perishable foodstuff, shorn of its waste, is packed in flyweight wrappers and boxes; a special crate has been designed for eggs—and so on into a list of a thousand-and-one types of products.

However, there is still much room for improvement in this Air Age as the flying of commodities to market become more commonplace. The sum total is that the resourcefulness of every segment of the packaging industry—glass, wood, plastics, paper and light metals alike—must be exerted if safe methods for transporting numerous items that did not necessarily sprout wings in time of war is to be provided.

The need for special packaging devices is already mounting, and the demand will daily become more pressing as air cargo rates, already down to 15 cents per ton-mile in some instances, plummet within range of the average mail order houses and various other potential shippers of goods in large quantities.

That the transportation of packaged goods warrants more than passing interest of airlines and container manufacturers is shown in the number of shipments air expressed during 1945, when 2,165,132 packages were flown, compared with 1,773,823 in 1944, an increase of 22 percent. But that is only a fraction of the total amount of airborne goods transported during the war years when speed proved to be of paramount importance in rushing both military and civilian supplies. The total weight of air express shipments and their average poundage for that period increased by 345 and 170 percent, respectively.

Further, in order to grasp the true picture of the remarkable strides shown in the last five years by air cargo, it must be remembered that the express figures, while a part of air cargo, do not include the hundreds of tons of goods flown by airlines on exclusive cargo flights.

## Influence of Packaging

Packaging is doubly important since it influences the shipper as well as the airline industry when it comes to the efficient and economic distribution of goods. By and large the problems of packaging have a direct effect on the attainment of maximum speed, which is the backbone of air cargo.

It has been estimated that about half the loss in speed is caused by ground time, a portion of which is expected to be wiped out in the future by the application of new handling and loading methods. This will be made possible, at least in part, by the design of new cargo carriers and standardization of tie down and container equipment. The armed forces have conducted considerable research in this and related fields.

Latest sealing materials are expected to be available shortly which should eliminate damage to goods caused by excessive temperature, humidity, corrosion, insect infestation, mold formation and any other number of reasons. This will practically insure the safe delivery of drugs and biologicals and other products.

To simplify the tie-down problem and allow maximum efficiency in handling and loading as well as reduce packaging requirements and tare weights, there is a definite need for uniform standard containers in which unpackaged articles may be placed. They should be light in weight, virtually collapsible, inexpensive, sufficiently sturdy and easy to handle. Some may even be used for repeated shipments.

A light and yet durable material, which combines the protective quality of corrugated paper with the folding features of heavy kraft wrapping paper, has been advocated for the shipment of small, odd-shaped goods. By employing this dual method the need for oversized cartons, excelsior, and other paper for inner packaging is offset, and at the same time provides a considerable saving in costs.

Corrugated and solid fibre containers, boasting lightness, weather and chemical resistant insulation, and capable of protecting its contents from impact and shock, is certainly applicable to air cargo. In time it stands to equal if not surpass the metal container in durability and protective qualities.

One primary concern of the airlines is the manner in which packaging is conducted at plants where goods are earmarked for distribution by plane.

CARGO FOR UNITED—Various types of packaging for air shipment are highlighted in this scene as a United Air Lines Cargoliner prepares to take on a load of foods.

MEAT FOR AIR SHIPMENT — Meat in wirebound crates being loaded into a cargoplane for swift transport to coastal cities.

Heavy and bulky boxes and steel drums may be practical for surface transportation, but not for the cargo ship.

Herein, the research work of container manufacturers stands to put them in good stead especially with shipping interests. Experimental work was carried on by packaging interests in war years when every known type of goods, liquids, and solids were desperately needed by fighting forces on the far-flung battlefronts. Those tests on treated paper and fabrics, molded plywood, plastics, and flyweight metals shortly will pay dividends.

## Inexpensive Additions

New inexpensive shock absorbing products such as sponge rubber, may also replace the less effective packing materials employed in the past to protect the fragile items. This should bring about an increase in the number of shipments of articles such as glassware, phonograph records, drugs and other breakables sealed in their delicate pouches, because ordinarily it is this type of merchandise that possesses an unusual value and thereby can well afford the use of air transportation at present tariff rates.

Another revolution in which the container and box manufacturers will play a major role will be in making packaging holders that meet requirements in the minor disassembly of some items for transportation purposes. Proper stacking will naturally create more room and the use of smaller containers will be doubly important in this connection pending the development of improved cargo transport floor designs.

Anticipating that the postwar needs of air cargo will be heavy, the manufacturers of wirebound boxes are also developing lightweight shipping containers with greater flexibility and easier handling, particularly for use in heavy loads. Their object is to provide a wirebound unit for commodities which cannot be adequately flown in paper or fiberboard boxes and containers.

Probably more work has been done on the packaging of perishables, particularly flowers, for air transit than any other commodities. Manufacturers have offered a variety of methods of dry and wet packing, and one airline has developed a thermostat temperature control on its all-cargo plane. Another keeps posies fresh in a floral icebox made of fiberglass coated cloth.

In addition, Government and industry experts are studying production of lighter packages for airborne shipments, prepackaging to reduce spoilage, and family-sized packaging for refrigerated display and self-service in stores relating to perishable foodstuff, notably seafood and fresh water fish.

Already patented is a type of transparent packaging material that seals in moisture. Through the use of this material, chilled fresh fish may be flown minus ice since the initial low temperature is maintained by dead-air space created in the carton by the use of paperboard between two wrappings. With the elimination of ice, the container weight for 100 pounds of fish is reduced from 75 to 11 pounds.

In an experimental flight conducted at 12,000 feet to study the operation problems involved in the air shipment of seafood, live lobsters, oysters in the shell, hard shell crabs, and packed porgy fish were successfully packed in fiber box containers made of weatherproof material. No problems regarding packaging, odor, leakage or injury were encountered.

Various methods of pick-up and delivery of air cargo meanwhile are being studied by both airlines and manufacturers. It has already been demonstrated that airborne articles can be safely parachuted to earth from low-flying transport planes in flight within the limits of a small area.

To promote further the development of air cargo, the Cargo Traffic Section of ATA is concentrating on problems relating to the development and transportation of all types of goods by air, loading and unloading, handling in transit with such allied problems as packaging and refrigeration; and, of course, the economics that will make possible the distribution of cargo at prices acceptable to the public.

Given a little more time, aircraft manufacturers will perfect an all-purpose cargoplane and the packaging industry will develop new packaging equipment and devices, enabling the scheduled air carriers to slice their rates, superior quality commodities will fly to market in quantities undreamed of even today.

## VETS FLY EGGS

EGGS FOR THE CZECHS — Jarmila Novotna, beauteous prima donna of the Metropolitan Opera Company, talks over a mercy shipment of eggs from Newark to Prague, Czechoslovakia, with George E. Cannock, of Veterans' Air Express. Two UNRRA shipments of 66,000 hatching eggs each were flown by VAE to the Czechoslovakian capital in a four-engined Skymaster christened Globetrotter. The eggs were shipped in specially prepared packing cases, and the interior of the plane was maintained at a steady temperature of from 40 to 70 degrees so that the cargo would not freeze. On each trip the plane followed the Newark-Newfoundland-Azores-Paris-Prague route, with flying time 25 hours. Three hundred pounds of sample cut glass, consigned to 40 distributors in the United States, were brought back from Czechoslovakia on the second return trip. Since the completion of the Newark-Prague flights, VAE has flown eggs to Warsaw, and expects to serve many other foreign points with UNRRA consignments. This was the first time that any foreign commercial plane had entered the Russian zone.

# Non-Scheduled Air Transportation Comes Under Aegis of Civil Aeronautics Board

THE Civil Aeronautics Board has placed non-scheduled air transportation under its wing—a move long advocated by many leaders in this phase of the business. It was immediately hailed by the Institute of Air Transportation which expressed "pleasure over the intelligent action and cooperative attitude" of the CAB.

Minimums have been established for aircraft instruments, pilot qualifications, flight time, weather at alternate airports, and fuel requirements. August 1, 1946, has been set as the effective date. Those carriers engaged in non-scheduled operations before that date will be protected by a grandfather clause until the administrator has passed on their applications for operating certificates.

It is interesting to note that shortly before the CAB came into the picture officially, Sigfrid O. Samuelsson, executive vice president of the Institute, addressed a letter to CAB Member Harlee Branch in which was contained recommendations believed to be "helpful to the CAB in coming to a determination of matters pertinent to Docket 1501." The letter said, in part:

"It is the belief of the Institute of Air Transportation that the presentation of evidence at open hearings is of little value in the light of the vast expansion and mushrooming of non-scheduled operations in the last two months.

"Admittedly it was based on meager experience of the 'old time charter and fixed base operators,' who were engaged in this business since World War I. The vast changes in types of aircraft, and the magnitude of operations brought about by the availability of C-54s, 47s and 46s, through the War Assets Administration, have altered the complexion of this picture beyond recognition. Even now, companies who are pioneering a new and greater air industry in cartage of cargo as well as in passenger operations are unable to estimate with any degree of accuracy the extent and possible scope to which this business may expand.

"It is felt, therefore, that any decision of conclusive nature which the CAB might come to be based on what is felt to be inadequate and incomplete information as presently set forth in Docket 1501, would add to the confusion rather than be of any aid insofar as equitable and fair practices might be concerned.

"The Institute of Air Transportation is fully aware that the CAB has had the matter under advisement for some time and that industry as well as public opinion is pressing for a decision. In fairness to all engaged in this industry, it is felt that it will be beneficial to await more complete reports on the operation of companies whose business has expanded many-fold. The Institute of Air Transportation suggests that as a means of obtaining this information the CAB:

"1. Require immediately, the registration of all non-scheduled operators and they further require such operators to submit periodical reports on their activities, and that such reports take the form of a questionnaire which is to be prepared and sent out by the CAB. (In the meantime the Institute of Air Transportation will undertake to prepare and submit a brief which will incorporate the full information in reference to the operations of its membership. These reports will be comprehensive and will include such data it feels is lacking in Docket 1501, and without which, it is believed no lasting decision can be made.)

"2. A second step towards regulation, and one which it is felt can be entered into immediately, is the establishment by the CAB of minimum safety standards requisite for all non-scheduled operators.

"3. It is believed that the CAB could establish limited economic regulations at least to the extent of requiring all operators to carry adequate insurance to cover life and property entrusted to their care."

## Self-Refrigerating C-54s Are Developed by Douglas

Research on the first self-refrigerating plane has been completed by Douglas Aircraft Company engineers, with the result of the projection of a vast new commercial field—the air transportation of perishable commodities.

Up to the present time, only limited quantities of perishables had been carried in standard transport planes with dry ice packing as a refrigerant. Present plans call for conversion of surplus Douglas C-54 Army transports into flying refrigerators. It was pointed out that cabin space of the high-speed, four-engined *Skymaster* (DC-4) is equivalent to that of a standard freight car.

Unique feature of the perishable commodities carrier is a centrally divided cabin which permits one half to be cooled while the other remains at normal temperature or is heated. Developed by the mechanical section of the Douglas engineering department at Santa Monica at the suggestion of United Air Lines, plans for the refrigerated plane met instant approval of three carriers. Airlines see in the company's development a vastly broadened scope of cargo transportation, especially in flying garden-crisp vegetables and tree-ripened fruit from agricultural areas to large markets swiftly and in tip-top condition.

Although produce has been flown to provide some delicacies at premium prices, large-scale scheduled deliveries for the general market have not hitherto been feasible.

Douglas researchers estimate that 17,100 British thermal units per hour are required to maintain the *Skymaster* cabin at a temperature of 45 degrees on a 120-degree day. Forty-five degrees is considered ideal to keep perishables at peak freshness. Any selected temperature from 45 to 85 degrees fahrenheit is maintained constantly through thermostatic controls. Both compartments can be set for the same temperature or one may be kept cold while the other is warmed.

Purpose of the divided compartment and individual temperature control is to permit maximum load utilization. Thus, while one compartment carries perishable commodities, the other may carry other types of cargo. Conceivably, one plane may carry chilled lettuce and a cargo of baby chicks —which require an even temperature of 85 degrees—and deliver both to their destination in perfect condition.

Conversion of the Army planes involves adding a layer of fibre-glass insulation, identical to the soundproofing in DC-4 luxury airliners, and a vapor-cycle refrigerating unit employing Freon 21 as a refrigerant. The mechanism is operated from the plane's electrical system in flight and from a gasoline-powered motor generator on the ground. A gasoline combustion unit provides heat. Insulation and the power installation add approximately one percent to the aircraft's gross weight of 63,000 pounds.

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(*Continued from Page 5*)

A rental controversy of three years' standing, between the City of New York and **Pan American, American Overseas,** and **TWA,** has been settled. Henceforth the airlines will pay for the space occupied by Federal agencies at LaGuardia Field. The issue had been raised by former Commissioner of Marine and Aviation John McKenzie who contended that the agencies served the airlines and not the city. The airlines asserted that the Government should be billed, but the latter disclaimed responsibility.

A prediction that by 1955 America will have 400,000 civil aircraft and several times that many civilian pilots is made by CAA Administrator Theodore P. Wright in a foreword to a booklet, *Civilian Wings for Everyone,* published by **Shell Oil Company, Inc.**

According to one report, **Continental Air Lines** is in the mood to try out the three-cent-a-mile passenger fare suggested by C. R. Smith, chairman of American Airlines, on its Kansas City-Denver run. Present fares run from four-and-a-half to six cents a mile.

**Prestwick Airport,** at Prestwick, Scotland, has been taken over by the British Ministry of Civil Aviation. Scottish aviation figures are not too pleased over the action, and have criticized the "remote control" of London.

Typical lighting plans and wiring diagrams for all classes of airports are included in a new 56-page booklet, *Airport Electrical Equipment,* issued by the **Westinghouse Electric Corporation.** Copies may be secured by writing P. O. Box 868, Pittsburgh 30, Pennsylvania.

**Pan American Airways** has announced the inauguration of a series of weekly charter flights from the United States to Shanghai via Tokyo, to be operated under contract with UNRRA. The flights are to continue during the Spring and early Summer.

**Major General Elmer E. Adler,** vice president and general manager of Aerovias Braniff, S. A., a Mexican airline, has received the Distinguished Service Medal in Mexico City, presented to him by Ambassador George S. Messersmith.

Over in Australia there's an air freight service known as the **Roy Farrell Aviation Company** which is demonstrating the value of air cargo in that part of the world. The company is headed by Roy Farrell, an American, who has 500 over-the-Hump trips to his credit. Using C-47 equipment, the new airline recently flew 7,000 pounds of cargo from Sydney to Shanghai in six hours—and sold the lot.

The first of a new fleet of 20 Douglas *Skymasters* has been delivered to **Eastern Air Lines** by the Glenn L. Martin Company where it had been reconverted. EAL is presently operating more than 50 DC-3s.

**Poland** and **Russia** have concluded an agreement on air travel, including joint operation of the Moscow-Warsaw line, the Moscow-Warsaw-Berlin line, and the Warsaw-Berlin line. Soviet technicians will aid the Polish airlines.

In spite of all the publicity surrounding radar, this wonder device has not reached a state of perfection—at least for airline purposes. The commercial use of radar is not expected before another two or three years.

A new national duration record for two-place gliders was established April 9, when Franklin E. Hurtt and Richard Powell soared over Harris Hill, New York, 10 hours and nine minutes in a **Schweizer** utility sailplane. The best previous mark was nine hours and 17 minutes set November 4, 1945, by Hurtt and Paul A. Schweizer.

**Western Air Lines** is expanding its ground facilities with the construction of a $1,500,000 hangar and maintenance building at Los Angeles Municipal Airport. The new building, to be completed by November 1, is made necessary by WAL's purchase of 23 four-motored Douglas DC-4s and 20 Convair 240s.

At the request of the War Department, **Sumner Sewell** has been released from his position of president of **American Overseas Airlines** to undertake an important assignment in the national interest. **C. R. Smith,** chairman of the board of American Airlines, has been elected Sewalls successor.

**Western Electric Company** recently rushed 900 telephones from St. Paul, Minnesota, to Texas, by way of the **Air Express Division Railway Express Agency.**

**United Air Lines** has adopted the names *Mainliner 230* and *Mainliner 300,* respectively, for its 1946 fleet of Douglas DC-4s and DC-6s.

**Revere Airport** at Revere, Massachusetts, is to be ready for operations this month, giving the Greater Boston area another much needed airfield for lightplanes.

The **Wright Aeronautical Corporation** has been notified by the War Assets Corporation that its proposal to purchase the Wood-Ridge, New Jersey, plant, in which it built more than 10,000 Cyclone 18 aircraft engines for Boeing B-29 *Superfortresses,* has been approved by the Government agency. This action is subject to compliance with the usual legal formalities and provisions of federal Surplus Property Disposal Regulations.

A new flight instruction program and a plane rental service are now in operation at **Robinson Aviation, Inc.,** Teterboro Air Terminal. The Aeronca *Champion* will be used for initial training. Later, two-passenger Aeronca *Chiefs* and the four-place-family-type Stinson *150 Voyager* will be added.

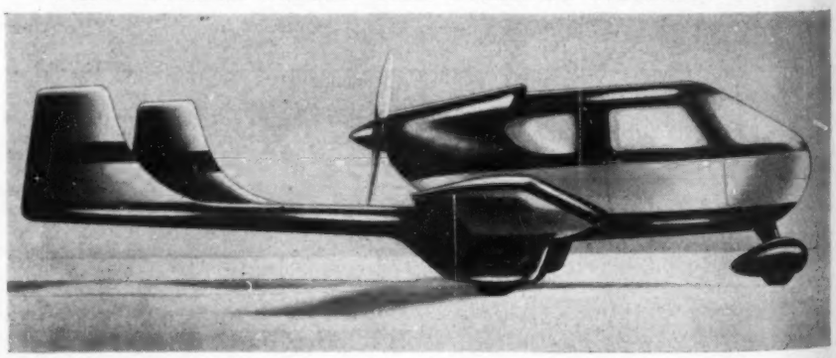
To prepare the way for quantity production, **Bendix Helicopter, Inc.,** has placed orders for the component parts for six large, four-place helicopters which will be used for further flight testing. The company has leased a 30-acre site at Stratford, Connecticut, and expects facilities to be available for production by November of this year.

The biggest single shipment in **Pan American-Grace Airways'** 18 years of air cargo operations along the west coast of South America was registered recently when 80 cases of Fleischmanns Yeast, weighing 4,576 pounds, were transported from Lima, Peru, to Guayaquil, Ecuador.

In order to help its passengers to anticipate temperatures of their destinations, **Eastern Air Lines** is distributing a *Weather Guide* which covers each of the 12 areas in which the company operates. The booklet, to be issued for each season of the year, contains a temperature condition analysis of specified areas as based on daily normal temperature in every area of the United States.

**Air Marshal Richard Williams** of the Royal Australian Air Force, who is to be director of civil aviation in Australia, arrived here recently aboard a PAA *Constellation,* and revealed that his government in conjunction with New Zealand, is to sponsor an airline from Sydney to San Francisco, by way of Fiji, Canton Island and Honolulu.

## NEW PLANE FROM THE PACIFIC NORTHWEST



Here's the Wheelair 111-A, four-place pusher-type, all-metal monoplane made by Puget Pacific Planes, Inc., of Tacoma, Washington, a new entrant into the aircraft manufacturing field. The plane has a maximum speed of 135 miles per hour, a cruising speed of 120 miles per hour, and a landing speed of 55 miles per hour. It features roomy, automobile-type, upholstered seats, with provision for pilot, three passengers, and 160 pounds of baggage. Normal cruising range is 600 miles. The pusher design affords excellent vision.

THE DONALD T—Flagship of the recently launched International Air Lines presently flying cargo and passengers between Newark Airport and Miami. Passenger service, however, is temporary. Plans of the company are to maintain an air freight service to Florida, the Caribbean area, and South America. Before the Summer is out, International will have a half dozen DC-3s and two DC-4s. Contracts have been made with New York dress manufacturers for the air transportation of their products to anywhere in the Western Hemisphere within 24 hours. Heading International is Leonard L. Taicher, president and general manager. Other key men in the new airline are William Tomar, first vice president and general counsel; Julius Tomar, second vice president and Port-au-Prince representative; Henry Taicher, third vice president; Irving G. Lippman, secretary; and Jess Mankin, chief of operations.

A survey by the **Office of Safety Regulation, CAA,** discloses that the general average used as a computing standard for aircraft passenger weights is 10 pounds under the 170-pound figure previously in effect.

An oil refiner which is capable of restoring used lubricating oil to the quality of new oil has been announced by the **Youngstown Miller Company,** a subsidiary of **Walter Kidde & Company, Inc.** of Belleville, New Jersey. A standard model especially adaptable for airports or air transport companies is now in production.

**Norwood Airport** at Norwood, Massachusetts, is to have its own weather forecasting station, with a staff of experts on duty to receive and interpret continuously the data accumulated by the facilities of the United States Weather Bureau. The forecasts will be used by **Wiggins Airways,** and will be available to individuals and companies to whom weather forecasts are important in the conduct of their business.

Appointment of the first executive committee of its recently-organized **Air Transport Division** has been announced by the **American Society of Civil Engineers.**

**Pacific Air Lines** has applied to the Civil Aeronautics Board for direct air routes from Los Angeles to Seattle, Las Vegas, and Reno.

A coast-to-coast private telephone line, with tie-lines to all intermediate stations, has been completed for **American Airlines** by American Telephone and Telegraph. The system is designed primarily for the reservations department.

The **Cuban Government** has awarded a contract to **TACA Airways** for the transport of air mail from Cuba to Mexico, British Honduras, Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica and Panama.

C. Bedell Monro was elected president of **Pennsylvania-Central Airlines** for the thirteenth successive year at the annual directors' meeting. James H. Carmichael, vice president; J. J. O'Donovan, Luther Harris, and Robert J. Wilson, vice presidents; R. G. Lochiel, vice president and treasurer; Hayes Dever, secretary; Richard E. Fell and Robert M. Averill, regional vice presidents, were all reelected to their respective positions.

More stewardesses are now being trained by **United Air Lines** than ever before in the company's history.

The **Air Express Division, AEA,** reports that, in less than 72 hours, a shipment of 10 tweed suits was air expressed from England to Seattle, Washington, and placed on display in the windows of the Frederick and Nelson department store.

# AIR CARGO
## *on Scandinavia's Mind*

GOODS manufactured yesterday, snipped today and used tomorrow, is the promise manufacturers and consumers on both sides of the Atlantic are offered by air cargo delivery. Beginning this summer, with the inauguration of direct flights between the United States and the capitals of Scandinavia, the Danish (DDL), Norwegian (DNL) and Swedish Intercontinental Airlines (SILA) will be in a position to offer this high-speed, efficient service to industry on both sides of the Atlantic.

There are three general classes of shipments which may be expected to move by air all over the world in increasing quantities, according to John A. Church, Jr., manager of SILA's air cargo department in New York.

The first category, which to date has been most publicized, is emergency shipments, which are needed in a hurry regardless of the cost of the goods or the transportation. Among the several varieties of this type of cargo are medicinals. During the survey operations of the Scandinavian Airlines last fall, shipments of approximately 20,000 pounds of penicillin were carried to Stockholm and destinations beyond, and in two cases individual shipments weighing almost a ton each were aboard.

Another type of emergency shipment is machinery parts. These parts, while not valuable and ordinarily moved by surface transport, become essential on account of breakdowns in factories or marine installations, causing work stoppages, and thus must be shipped by the speediest media of transportation.

The second large category which may be considered potential air cargo for Scandinavia comprises perishable goods and newsreels.

Most newsreels produced in America are shown in Scandinavian theaters, and for competitive reasons it is essential for producers to arrive first with the most complete coverage. An out-of-date newsreel print no longer has much value and therefore air cargo service is employed whenever possible. This is also true of news mats, negatives, news features, advertising mats, and similar matter. At least two American magazines are currently publishing Scandinavian editions in Stockholm and others are planning identical expansion of circulation. Air cargo will be of invaluable importance to these firms.

### Airborne Eggs

Another interesting example is eggs for hatching. Early this year SILA was offered a shipment of eggs weighing approximately a ton, but was unable to accept because regular scheduled operation was not in effect at that time. Intended for an international relief organization, these eggs were carried by another transatlantic airline to London for distribution to the continent. Another similar inquiry has been received from a foreign purchasing commission, covering a shipment of 5,000 pounds of hatching eggs for delivery to any Northern European port. Hatching eggs will last about six days in transit, and it is presumed that all such cargo will move by air in the future.

Church pointed out that there has been much experimentation, notably at Wayne University, on the carriage of perishable foods by air and consignment of such commodities as apricots from California, tomatoes from Florida, and pineapples from Cuba.* From the results of these experiments it may be said that a certain quantity of luxury foodstuffs will be a regular item of air cargo business to Scandinavia.

Fresh-cut flowers are a considerable item of domestic cargo business from South America to the United States, with such shipments as orchids from Columbia, Venezuela, Guatemala and Easter lilies from Bermuda. The Scandinavian Airlines have had inquiries from the largest importer of tropical plants and vines in the United States, who is making arrangements to ship orchid plants and other exotic items from Puerto Rico and points south via New York to greenhouses in Sweden.

"While the above categories of cargo have the most news value," Mr. Church said, "the potential air cargo on our flights to Scandinavia and the cargo the Scandinavian Airlines are looking for most earnestly, is a type of cargo that moves by air not for the obvious reason that it is urgently needed and perishable, but because the exporter and importer can actually save money by having it carried by air."

An example is the dress goods trade. Take the case of an importer in Sweden, who orders a hundred or more dresses priced for export at $10, to be shipped from America. Currently, he orders these well in advance of season and receives the shipment from six weeks to three months after the order has been placed. These are fashionable and seasonal goods. Under the most favorable circumstances he will be able to dispose of half the lot at full price and the remainder will be closed out at a reduction, either because the season is over or the dresses have not become popular in his market.

This importer could instead have ordered a dozen pilot models to be delivered by air express and could have found out by experience which styles happen to sell best in his area. Small repeat orders of popular merchandise could be filled by air express at close intervals. Most of the stock would be disposed of at full price; little or nothing would remain unsold at the end of

SKYMASTER FOR SILA—One of the Douglas DC-4s which Swedish Air Lines will operate on its transatlantic runs. SILA's planes will be pooled with those of Norwegian Air Lines and Danish Air Lines, the over-ocean service to be known as Scandinavian Airlines.

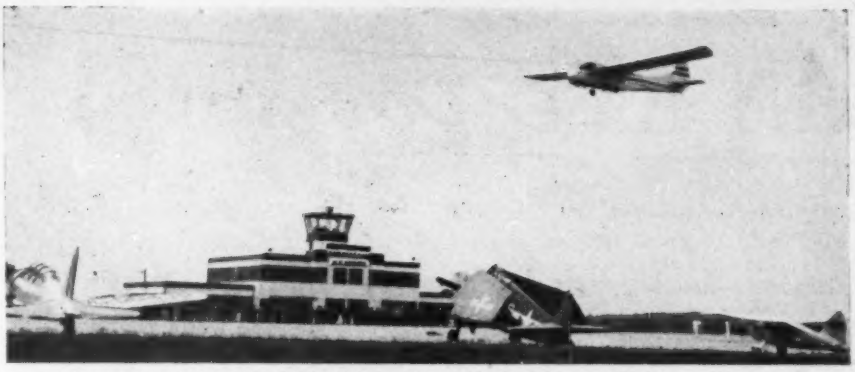
*See *Vitamins in the Air*, February, 1945 issue of AIR TRANSPORTATION.

the season. Finally, the importer could turn his capital over several times instead of once during the season, either operating on smaller capital or doing a bigger business, in either case to his own advantage.

This is no longer a matter of theory, because the most important class of cargo now being carried to South America is women's dresses and underwear, gloves, costume jewelry, millinery, hose and shoes. Fur coats, too, have recently become important in this respect. For similar reasons any expensive merchandise, whether fashionable or not, may move by air at an economy in comparison with slower means of transportation for the reason that stocking large quantities of expensive goods means tying up a large amount of capital in inventories and increasing expenses in warehousing, insurance, stock control, and other factors. Here, again, it is no longer a matter of theory. The following is a list of goods which move extensively by air cargo to destinations abroad and give an indication of what the Scandinavian airlines expect to carry:

Fountain pens, jewelry, optical goods and cameras, sewing machine parts and needles, typewriter parts, eyeglass frames and lenses, dye stuff, perfume oils, flavoring extracts, synthetics and intermediates, high-priced machine parts, oilwell drill bits, diamond cutting tools, dyes and matrices, machine tools and parts, watch parts, jewels and bearings, refinery catalysts, tungsten wire, graphite lubricants, etc.

"A great deal of business has been generated in America by air cargo carriers by persuading shippers at inland points such as Chicago, St. Louis and Detroit to use a combined rail-air service. A combination of fast rail service in the United States and air cargo beyond gives the shipper a faster service than he could get in any other way, while at the same time it reduces his cost of transportation," Church concluded.



COMMERCIAL FREIGHT BY GLIDER—Chockfull of 1946-model Philco radio sets, this motorless transport was towed by a DC-3 operated by Winged Cargo, Inc., from Philadelphia's Northeast Airport to Havana, Cuba, and San Juan, Puerto Rico. Consigned to Cia. Cubana Radio Philco in Havana and Gonzalez Padin in San Juan, the glider-borne shipment was the first of late-model radios to any of Philco's distributors in 100 countries. Winged Cargo is operated entirely by veteran flyers of the armed forces, and is headed by Colonel Fred P. Dollenberg.

## Kansas Flying Farmers

An organization meeting and convention of the Kansas Farmers' Flying Club is to be held in Hutchinson, Kansas, on May 24. The *Kansas Farmer* and the Hutchinson Chamber of Commerce are sponsoring the event, in connection with which there will be an exhibition of planes and accessories by manufacturers.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# IT'S AN *Air* WORLD

[REG. U. S. PAT. OFF.]

*By* L. A. GOLDSMITH, *Economic Analyst*, AIR TRANSPORTATION

## Maxson's Miracle Meals Frozen Cold When Sent, Piping Hot When Served

"COLD turkey hot" is the crytic phrase used by Frederick C. Othman, *New York World Telegram* writer to describe a dinner served to him recently on a Pan American Airways flight from New York to London. In his own words: "Everybody's dinner—turkey, peas, mashed potatoes, gravy and dressing—came frozen solid in a plastic plate straight from a turkey dinner factory in New York."

Mr. Othman becomes lyrical when he refers to the "blonde beauty in a Pan American Airways uniform, who pops the dinners in an electrical oven, and a few minutes later produces them ready to eat." He fairly rhapsodizes on the fact that three hours later another meal appears; this time, steak with mushrooms is placed before the contented passengers by means of the same thawing out process. He dreamily muses on the not-too-distant future when "grocers will have assorted dinners frozen on plates for sale, and wives will heat them for husbands to eat them, and throw the empty dishes away."

That, in a nutshell really tells the story of these Maxson pre-cooked frozen mealtime miracles, served for the first time on any airline to passengers all along the *Clipper* routes of PAA while winging over the Atlantic at 300 miles an hour.

Passengers taking off on the 4 p.m. flight from New York to London actually have three meals of hot savory "Yankee" food and several snacks in four different countries by the time they have had their lunch upon landing in England the next day. The Maxson dinner is served at about 6 p.m. between New York and Newfoundland, and breakfast while the plane refuels at Shannon, Ireland.

The meals, prepared by the Maxson Food System in its Long Island plant, are based on the specifications laid down by PAA food consultants. All foods are fully cooked to the proper degree. They are then placed on a partitioned special plate made of pulp wood, sprayed with a tasteless, odorless substance which provides a smooth dinnerware finish. The plate is disposable.

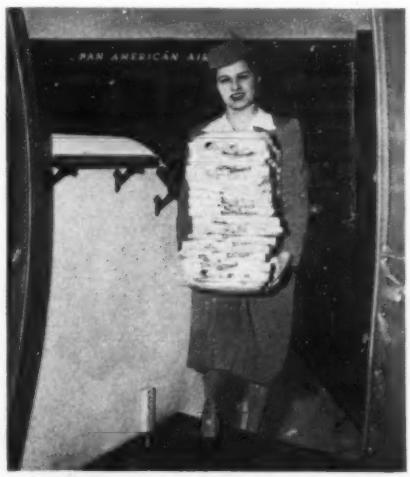
As soon as the meals are placed on these plates, they are flash-frozen at 20 degrees below zero and kept at a temperature not exceeding 10 degrees above zero. Each is wrapped in Patapar paper and sealed in a laminated paper envelope. Just before a *Clipper* departs the packaged meals are placed aboard in a prechilled balsa wood box covered with stainless steel, in which they can be kept frozen for 48 hours or longer if dry ice is used.

In cooperation with Pan American, the Maxson Corporation designed the galley for the *Constellations*. With two electric Whirlwind ovens in each galley, 12 piping hot home-style meals can be served in 15 minutes. Maxson supplies the meat, vegetables, and potatoes. The appetizers, salads, desserts, and beverages are prepared just before the flight in the airline's Commissary. Here is a typical flight menu:

**Half Grapefruit Maraschino**
**Celery & Olives**
**Sirloin Steak with Sauce**
**Baby Lima Beans**
**Potatoes Boulanger**
**Hearts of Lettuce with**
**Russian Dressing**
**French Pastry**
**Coffee — Tea — Milk**

The advantage in utilizing this Maxson method of pre-cooked frozen meals is not only the value in having these home style meals on the passenger flights, but also the saving in space and weight. C. S. Snowden, passenger service manager of Pan American's Atlantic Division, declares that "these frozen meals are so compact that they save about 65 pounds over the old methods of storing meals in thermos containers." This also permits plenty of space for in-between meal snacks and second servings if and when desired. In fact, the passenger can have a hot meal whenever he or she wants it, as it takes the flight attendant so little time to prepare it.

In addition to having these miracle meals on passenger flights this new freezing method permits the airline to secure food from the best catering and market sources, and have the food stored at airports for use when needed. For instance, PAA flies 2,000 dinners at a time over to Foynes in Ireland for storage there so that the *Clippers* can pick up supplies on their homeward bound journeys. As soon as refrigerator facilities can be shipped and installed at Leopoldville in the Belgian Congo, quantities of these frozen dinners will also be stored there, and so on *ad infinitum*.




FOR SKY MEALS—Ellen Murdock, PAA stewardess, carrying a score of Maxson dinners into one of the airline's Clippers. Special ovens aboard the plane turn them into sumptuous meals in 15 minutes, and then—yum! yum!

## Fashions Flown Down To Rio Point Up Big Air Cargo Business

HISTORY is being made in New York's fashion world, and aviation is aiding and abetting this new fashion. For the first time in the development of American fashions a custom-made collection of made-in-America dresses and costumes is being shown outside this country.

Also for the first time an airplane has come to New York on a special mission such as this. A privately chartered plane of Aerovias Brasil, S. A., an affiliate of the TACA Airways System, took off last month from LaGuardia Airport en route to Brazil. Aboard were eight nationally famous beauties in the fashion model world selected from 300, as well as a selected group of theatrical and musical talent.

From April 24 to early June these American beauties, clad in gowns fitted to their individual figures, will appear nightly in a special fashion and theatrical show at the Casion of the Copacabana Hotel in Rio de Janeiro. Jorge Guinle, executive head of the Copacabana—and incidentally a millionaire banker and society leader—together with his beautiful North American wife, are responsible for the idea.

In South America they are enthusi-

GLAMOROUS OCTET—America's eight top fashion models posing before an Aerovias Brasil transport plane before taking off from LaGuardia Airport for Rio de Janeiro. If they can't sell North American fashions, then no one else will.

astic over our high styles in ready-to-wear women's apparel, but up to now they have not been so sold on our ability to supply the one-of-a-kind custom-made variety. Latin American ladies, and their men, too, for that matter, have hitherto believed that only Paris and London would do right by the exclusive subtleties of real custom-made clothes.

Now high society in Rio de Janeiro will have the opportunity to see what New York can do and *does* in the way of a specially designed presentation for South America by the members of the American Dressmakers' Association. The fashion houses participating in this special showing are Henri Bendel, Bergdorf Goodman, Bonwit Teller, Hattie Carnegie, the House of Tappe, Jay Thorpe, Milgrims, Saks-Fifth Avenue, and Stein and Blaine.

Readers may ask why all this fuss about a fashion show flying down to Rio. Just this: fashion is big business and potentially very big air cargo business, both at home and abroad. In case anyone should have overlooked this potent factor it might be well to remember that fashion merchandise constituted the third largest industry of this country in 1939 following close on the heels of steel and automobiles. It looks as if fashion merchandise would be out to break all records in the future if and when shortages in fabrics are relegated to the past.

When it comes to worldwide air cargo, fashion merchandise will play a bigger and better part. As the Fairchild Publishing Company points out in its first English edition of *Fairchild's International:*

"Fashion has become intensely international. . . . Fashion is an inter-related world influence."

The publishers also state the following belief:

"The United States, the greatest mass producer of fine fashions with many regional sources of supply, is ready to spread the cult of her newly developed merchandise across the continents. Canada, too, prepares to export her well designed fabrics and ready-to-wear. Great Britain revives interest in and commercial attention to her quality woolens and tailored styles. Paris plots new inspiration—all in all a coordination of world fashions."

And this all adds up to more air cargo, more aviation profits, and more business everywhere.

## Braniff Cuts Air Freight Rate for Cotton Samples

A fourth class commodity rate filed by Braniff Airways with the Civil Aeronautics Board becomes effective on May 19, and will greatly reduce air freight rates for cotton samples. The announcement was made by Charles E. Beard, vice president.

"As we presently serve the cotton growing states of Tennessee, Arkansas, Texas, and Oklahoma, including the world's greatest cotton trading center of Memphis, and with applications pending for extension of our service to the cotton areas of Alabama, Georgia, North Carolina, Kentucky, and Virginia, we felt recognition should be given to the needs of the industry which contributes so largely to the economy of the entire territory," he said.

As an example of rates under Braniff's new tariff, 100 pounds of cotton samples could be shipped from Fort Smith, Arkansas, to Memphis for a total charge of $4.70 in less than two hours' flying time. This represents a reduction of $2 under the present rate.

Alonzo Bennett, vice president of the Federal Compress and Warehouse Company in Memphis and president of the National Industrial Traffic League of America, hailed the rate cut. Stating that it was the first time that any airline had granted a specific commodity rate for any type of raw cotton, he expressed the belief that the new rate "will undoubtedly be followed by other commodity rates designed to fit the needs of the cotton industry."

## Paging Mother Goose!

A special airliner for babies! Yes, that's it! . . . United Air Lines' new *Nurseryliner!*

Placed into operation this month, the *Nurseryliners* are Douglas DC-3s equipped with all sorts of special service features for mothers and their children. Right now these planes are plying between Los Angeles and San Francisco.

The mother-and-children-carrying aircraft leave each city at 2 p.m. daily. Two registered nurses, especially trained in the care and handling of babies and small children, are assigned to each plane. Service features? Well, here are some: baby foods, Teddy bears, rattles, and disposable diapers.

And what about the papas who do their traveling by air? No, sir! They can't come aboard the *Nurseryliner*—that is, unless they are accompanied by Junior.

## GOING LIKE HOTCAKES

Republic Aviation's Seabee, four-place amphibian family plane, which brought approximately $400,000 in sales at the recent aviation show in New York's Grand Central Palace. Sales made by distributors and dealers in the Metropolitan New York area, as a result of the public showing, brought more than $300,000 in addition to the forementioned figure. List price of the Seabee is $3,995.

## 20 Rainbows Bought by AA

American Airlines System has purchased 20 long-range, four-engine Republic *Rainbows*, at a cost of $1,100,000 each. Delivery of the 40-passenger airliners will begin next year.

[REG. U. S. PAT. OFF.]

## AIR EXPRESS, REA

A first-quarter statement by the Air Express Division of the Railway Express Agency showed an increase of 36.1 percent in charges paid by shippers for international air express over the first three months in 1945, while the volume of international shipments rose 31 percent for the same period.

March continued the steady increase in volume, characterized by the preceding two months, with 38,383 international shipments for an increase of 34.8 percent over 28,686 shipments in March, 1945. Charges paid by shippers for March amounted to $160,821 or an increase of 24.6 percent compared with the same month last year when $129,069 was paid. Exports, which had showed a two-to-one ratio over imports in January and February, are now reported as three times greater.

## AMERICAN

American Airlines, Inc., in its annual report for the year ending December 31, 1945, shows net profit of $4,339,458, compared with $4,396,163. Profit for 1944 was after provision of $1,000,000 for transition to peacetime operations. No similar provision was made in 1945, the accumulated reserve being deemed sufficient.

The net profit for the year of 1945, after deduction for Federal income taxes, amounted to $3.36 per share on 1,290,567.69 shares outstanding at December 31, 1945, compared with profit of $3.44 per share for 1944, there being 1,277,162.16 shares outstanding at December 31, 1944. Earnings for 1945, before provision for federal income taxes, were $8,139,458, compared with $8,446,163 for 1944, after provision in 1944 of $1,000,000 for transition reserve. Provision for 1945 federal income taxes was $3,800,000, compared with $4,050,000 for 1944.

Operating costs for 1945 were 81.9 cents per airplane-mile, compared with 86.2 cents in 1944. Specific elements of cost increased substantially during the year but overall mileage costs reflected a reduction, due largely to the economic benefit of increased operation.

## BOEING

Boeing Airplane Company and subsidiary companies earned a net profit for the year 1945 of $6,488,705, equivalent to $5.99 per share of outstanding stock, after provision for taxes and amortization of emergency facilities.

Sales and other income totaled $421,147,917, as compared with $608,463,360 for the previous year, reflecting the termination of war contracts. Provision was made for estimated Federal taxes of $16,582,561, after deducting tax refund claims of $2,567,439. The amount of profit transferred to earned surplus, $6,488,705 as compared with $5,257,522 in 1944, reflects the fact that termination of war contracts made it no longer advisable to provide additions to reserves from current profits as was done in war years. In 1944 this reserve provision amounted to $4,680,000. Available as reserves from previous years' transfers, the report showed, are $8,900,486 for contract adjustments and indeterminate expenses resulting from wartime conditions and $7,675,000 for the development of postwar products and markets.

## C & S

Chicago and Southern Air Lines, Inc. flew 90 percent more revenue passenger-miles during the first three months of 1946 than it did for the same period of 1945. This involved carrying 112 percent more revenue passengers during the same period of time. During the months from January 1 through March 31, the company carried 67,325 revenue passengers as against 31,787 for the same period of 1945.

For the month of March, 1946 alone, there was an increase of 112.24 percent in the number of revenue passengers carried as compared with March, 1945. This is the result of carrying 25,410 passengers in March, 1946 as compared with 11,972 passengers in March, 1945. Revenue passenger-miles for March, 1946 were 10,426,500 as compared with 5,469,762 for March, 1945.

## COLONIAL

Passengers, mail and express carried by Colonial Airlines continued to increase in the month of March. Express increased to 20,802 pounds for March as compared with 12,069 pounds for February, a rise of 72.3 per cent. Passenger travel totaled 2,624,785 passenger-miles in March of this year as compared with 1,748,733 for the same month of 1945, an increase of 60.2 percent.

## EASTERN

Eastern Air Lines earned a net profit of $2,126,294 or $3.56 per share after all Federal taxes in 1945 as compared with $1,499,337 or $2.51 per share in 1944.

Total revenues of $27,169,869 in 1945 represented a new peak in the company's history and compared with $18,806,266 in 1944, an increase of 44 percent. While total expenses increased to $18,878,575 in 1945 from $13,106,929 in the previous year, the operating expense per revenue-mile showed a material decrease from $.7593 in 1944 to $.6882 in 1945. This figure repeats the previous year's record of being the lowest in the industry for carriers operating comparable equipment. Eastern's cash and government securities increased $4,497,217 to $22,901,983 as of December 31, 1945. Total current assets were $26,313,292, current liabilities were $11,503,063, and net working capital was $14,810,229.

Operating an average of 53 percent more planes per day in 1945 than in the year previous, Eastern carried 896,565 revenue passengers, an increase of 83 percent, and flew 466,798,519 revenue passenger-miles, an increase of 73 percent.

## MID-CONTINENT

Mid-Continent Airlines' operating revenue for March, 1946 was $366,781, an increase of 72 percent compared with March of 1945. The number of revenue passengers carried increased from 9,749 in March, 1945 to 17,626. The net profit of the company, after provisions for income taxes, was $24,656 as compared with a net profit of $2,334 in March, 1945. Revenue-miles flown were 372,575 in March of this year as compared to 236,116 in March of last year.

## NORTHEAST

Northeast Airlines' passenger totals for March were the highest of any month in the 12-year history of the New England carrier. NEA carried 25,331 passengers during March, a gain of 264 percent over the passenger totals for the corresponding month in 1945. Northeast's previous high month was October, 1945.

## NORTHWEST

Northwest Airlines carried more revenue passengers during March than in any previous month in its history. The total was 38,520, an increase of 1,818 over the previous record of 36,702, established last October. The number of revenue passengers carried during February of this year was 31,943, and during March, 1945, it was 21,297. Revenue passenger-mile total this March was 22,669,110, compared with 19,574,139 during February of this year, and 14,042,859 in March, 1945.

## UNITED AIR LINES

Widespread acceptance of air freight by shippers was disclosed by United Air Lines in announcing an estimated 272½ percent increase during March over February, initial month of United's air freight operations. UAL carried an estimated 221,871 ton-miles of air freight during March as compared to 59,569 ton-miles in February.

## UNITED AIRCRAFT

Reflecting heavy cancellations of war contracts after V-J Day, both sales and net profits for 1945 of United Aircraft Corporation declined. Sales for 1945 were $484,310,503.30 as compared to $743,527,683.74 for 1944, and net profits in 1945 were $12,855,280.21 as compared to $15,562,335.88 for 1944. Net profits approximated 2.7 percent on sales for 1945 as compared to 2.1 percent in 1944. Net profits for 1945 were equivalent to $4.35 per share on the common stock outstanding after preferred dividends, as compared to $5.37 in 1944.

## WESTERN

Western Air Lines earned a net profit for its 1945 operations of $208,102.24 or 51 cents a share after taxes and other charges.

The company's report disclosed the following greatly expanded activities for 1945 in comparison with 1944: Revenue miles totaled 7,279,009, an increase of 79 percent; passenger revenue totaled $5,653,829.86, an increase of $2,485,001.57, or 78.42 percent; mail revenue totaled $1,239,396.60, an increase of 48 percent; express freight and excess baggage revenue totaled $205,980.94, an increase of 33 percent.

## Portugal Drops Taboo Zones

The Government of Portugal has abolished all zones over which civil aircraft cannot fly, according to Dr. Edward Warner, president of the Interim Council of the Provisional International Civil Aviation Organization.

# AIR TRANSPORTATION *Congratulates*

Fred M. Glass

James M. Cox, Jr.

C. W. France

J. Prescott Blount

George F. Chapline

Richard W. Darrow

## ★ EXECUTIVE ★

**COLONEL FRED M. GLASS,** wartime chief of staff for the Pacific Division, ATC, and prewar airline and CAA counsel, appointed vice president of Pennsylvania-Central Airline's Southern Region. A graduate of the University of Mississippi and Northwestern University, he holds a master's degree in aviation law.

**JAMES M. COX, JR.** and **C. W. FRANCE,** elected vice presidents of Eastern Air Lines. Vice president of the newspaper and radio station chain bearing his own name, Cox is a former lieutenant commander in the United States Naval Reserve. France is a veteran figure in aviation and is a former vice-president of the Curtiss-Wright Corporation.

**JOE E. EARLL,** in aviation and automotive activities for 31 years, named vice president in charge of merchandising for the Pacific Airmotive Corporation, Glendale, California. He learned to fly in 1917.

**J. PRESCOTT BLOUNT,** well-known authority on shipping perishables, appointed assistant vice president in charge of sales for Slick Airways. He has been connected with Wayne University, the Association of American Railroads, Southern Box and Crate Association, and United Air Lines. His articles have appeared in AIR TRANSPORTATION.

**GEORGE F. CHAPLINE,** former vice president of the Wright Aeronautical Corporation, who has joined the Ranger Aircraft Engines Division of the Fairchild Engine and Airplane Corporation as assistant general manager. An Annapolis graduate, Chapline has been an executive in the aviation industry for many years. He was recalled to active duty during the war and served as a captain, in charge of logistics planning, on the staff of Fleet Admiral Nimitz.

**W. ART MANKEY,** named assistant to the president of the Ryan Aeronautical Company. A recognized aircraft engineer, he has rejoined Ryan after two decades' absence.

**DONALD E. WOOD,** now holding the post of executive assistant to the vice-president and general manager of TACA Airways. At the outbreak of the war he was an executive of the Steel Recovery Corporation. He was commissioned a lieutenant in the Navy in 1943.

**WALTER E. LUCIE,** formerly controller and assistant secretary-treasurer of Kaiser Cargo, Inc., of Bristol, New Jersey, who has joined the Kellett Aircraft Corporation as executive assistant to R. G. Kellett, executive vice-president and treasurer.

**WILLIAM J. BYRNES** and **H. HEINRICH SPANG,** named to Colonial Airlines' respective posts of treasurer and assistant vice president. Byrnes held a similar position with Chicago and Southern Air Lines; Spang recently resigned as a CAB examiner.

**WALTER BOSWELL, RONALD KINSEY,** and **ROBERT LIGHT,** selected for the respective posts of director, vice-president, and assistant treasurer of Western Air Lines. All other incumbents were reelected.

**K. R. FERGUSON,** Northwest Airlines vice president, elected to membership on the board of directors of Aeronautical Radio, Inc., which acts collectively for radio needs of the air transport industry.

**MERRILL M. MANNING,** who has joined the board of directors of the Air Cargo Transport Corporation.

**JOHN HOWARD PAYNE,** named Washington representative for Air France. Until recently he was a consulting economist operating his own business in the capital. He has a distinguished background.

## ★ ADVERTISING ★ PUBLIC RELATIONS

**RICHARD W. DARROW,** appointed director of public relations for the Glenn L. Martin Company. A former newspaperman and aviation writer, he has been assistant to the president of the American Meat Institute, and prior to that time held the post of assistant director of public relations for Curtiss-Wright in New York.

**STEWART FAULKNER,** prominently associated with air transportation and manufacturing for more than a decade, named director of advertising and publicity for Continental Air Lines. He has been connected with American Airlines, Alaska Airlines, Pennsylvania-Central Airlines, Lockheed Aircraft, and Air Express International Agency. He is the son of Roy H. Faulkner, well-known Chicago auto executive and former president of the Auburn Automobile Company.

**STANLEY A. HEDBERG,** for the last seven months executive assistant to the manager of the Africa-Orient Division of Pan American World Airways, now press relations manager of the Atlantic Division. He has had wide newspaper and publicity experience.

**E. D. McGLONE,** appointed assistant advertising manager for Western Air Lines. He comes to WAL after 16 years with United Air Lines in Chicago.

**EDWARD J. DOHERTY, JR.,** who has joined the public relations staff of PCA as manager of the airline's Western Region News Bureau. A member of a family of journalists, he was formerly employed by a New York State newspaper. He is an ex-Army sergeant.

**FRANKLIN D. WALKER,** formerly with the Ziff-Davis publication and on the public relations staff of Curtiss-Wright, named editor of *The Pegasus,* monthly aviation magazine of the Fairchild Engine and Airplane Corporation. Previously he was on the editorial staff of *The Syracuse Post-Standard* for 12 years.

## ★ TRAFFIC ★

**ROYAL JORDAN,** former steamship executive, named European traffic manager for Trans World Airlines. From 1929 to 1942 he served as manager of the United States Lines' foreign office in New York.

Stewart Faulkner

Stanley A. Hedberg

Charles J. Rausch

Dorothy Mills

P. K. Yost, Jr.

L. A. Hardesty

**RICHARD S. MITCHELL,** appointed Central Region general manager of TACA. He has been successively connected with Pacific Marine Airways-Air Ferries, Ltd., United Air Lines, American Export Airlines, and Consolidated-Vultee Aircraft.

**REGINALD BRACK,** elevated to the position of manager of Braniff Airways' Northern Traffic Division. Headquarters will be in Kansas City.

**CHASE WASON,** former district traffic manager of Mid-Continent Airlines in Kansas City, promoted to the post of regional traffic manager, with headquarters in the same city.

**W. R. CAMPBELL, W. G. COURTNEY,** and **W. J. DALBY,** named by Trans-Canada Airlines to the following jobs: Campbell, traffic manager of the Eastern Region; Courtney, Central Region traffic manager; Dalby, traffic manager of the Western Region.

**C. J. MILLER,** new manager of PCA's interline and agency department. He has been with the airline since 1935.

**ROBERT ENGLAND** and **JAMES W. SPEER,** named by Northwest Airlines to respective district traffic managerships at Seattle and Detroit. England moves from Detroit, and Speer from Newark.

**MACK B. HARGRAVE, DANIEL L. SINKLER,** and **HENRY T. PHILLIPS,** who have taken over the respective positions of district manager of the St. Louis area, New York district manager, and Memphis city manager for Eastern Air Lines.

**W. W. WEHNER,** recently returned from military service, appointed district traffic and sales manager for United Air Lines at Fresno, California. He first joined the company nine years ago.

## ★ CARGO ★

**CHARLES J. RAUSCH,** named director of cargo service for United Air Lines. A native of Chicago, he has been assistant to the regional vice president—Eastern operations for the past three years. He will direct the operational handling of all air cargo activities, including mail, express, freight, and baggage.

## ★ PASSENGER ★

**DOROTHY MILLS,** one of the first PAA flight stewardesses to fly the Atlantic, appointed chief stewardess of the Atlantic Division. Twenty-six years old, she is the first woman to hold that position in the division, and is the only chief stewardess in the entire PAA system at present.

## ★ SALES ★

**P. K. YOST, JR.,** who has taken over the job of domestic sales manager for the Lockheed Aircraft Corporation. A native of Sacramento, Yost a political science graduate from the University of California. He joined Lockheed seven years ago.

**JOHN C. ROGERS,** named district sales manager for PAA in San Francisco. He has served the airline in Miami, New York, and the Panama Canal Zone.

**CLIFFORD E. ROBERTS,** appointed Washington, D. C. representative of engineering and sales for Boeing Aircraft Company. He previously served as assistant chief engineer for Glenn L. Martin Company.

## ★ OPERATIONS ★

**LIEUTENANT COLONEL L. A. HARDESTY,** former commanding officer of an ATC group, who has been named director of operations for TACA. He is a graduate of the University of Washington.

**F. M. McGREGOR, T. P. K. EDMISON,** and **E. W. STULL,** who have received the following Trans-Canada Air Lines appointments: McGregor, operations manager, Canadian Government transatlantic service; Edmison, operations manager, Eastern Region; Stull, operations manager, Western Region.

**ELLSWORTH A. LINDIG,** new director of operations for American Airlines at Niagara Falls.

GUESTS OF HONOR—Among those attending the Aviation Section's second annual international civil aviation luncheon meeting were (left to right): Vice Admiral Herbert F. Leary, Vice Admiral S. Land, John F. Budd, Sir William Percival Hildred, James A. Leftwich, and Herbert J. Lyall. Admiral Land is holding a Benrus watch received from the Aviation Section for "distinguished services rendered the American nation." The certificate at the right was awarded to Leftwich for "able assistance in stimulating public interest in the Section's activities and affairs affecting air commerce."

## ★ MISCELLANEOUS ★

**JACOB E. SMART,** Army Air Force combat veteran, named executive vice president of the Air Power League. A West Point graduate, he was largely responsible for planning and executing the famous low-level Ploesti mission of August, 1943. He has served as advisor to General H. H. Arnold and secretary to the Air Staff.

AWARD WINNER—Kinsey N. Merritt, general manager of public relations for the Railway Express Agency (right) receiving the Dartnall annual award for excellence in business letter writing. Gene Flack, president of the Sales Executive Club of New York, is making the award in behalf of the Dartnall Corporation of Chicago.

## Railway Organizes Santa Fe Skyway

When *The Harvey Girls* hit the screens of the nation, the Atchison, Topeka and Santa Fe was glorified in song—but nothing was said about Santa Fe Skyway, Inc.

The railroad has just announced organization of the airline as an affiliated company for contract air transportation. According to Fred G. Gurley, president of the Santa Fe, the airline will offer specialized contract air service in the general territory served by the railroad. Service will be confined to cargo, at least for the present.

Santa Fe Skyway will be manned largely by Army Air Force veterans. Initial operations will begin with Douglas *Skytrain* equipment.

## P-V Engineering Forum Now Piasecki Helicopter Corp.

P-V Engineering Forum, Inc., of Sharon Hill, Pennsylvania, has become the Piasecki Helicopter Corporation, as the result of a reorganization which expanded the company's financial and production facilities. The officers, F. N. Piasecki, president and founder; Elliot Daland, vice president-engineering; Harry S. Pack, vice president; and W. R. Frysztacki, secretary and treasurer, continue in their same positions.

## New Address for TCA

The reservations, ticket and district traffic offices of Trans-Canada Air Lines have been moved from 53 Street and Fifth Avenue, to 16 East 58 Street, New York.